

The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1011—VOL. XXV.]

London, Saturday, January 6, 1855.

[PRICE 6d.

M. B. JAMES CROFTS, MINING BROKER,
No. 1, FINCH LANE, CORNHILL, LONDON, TRANSACTS BUSINESS,
both in BUYING and SELLING, for immediate cash.
DIVIDEND MINES, well selected, are the best of any known investments—paying
from 15 to 20 per cent. per annum in dividends. The choice of NON-DIVIDEND
MINES for speculation requires careful discrimination.
Mr. Crofts transacts every description of business connected with the STOCK
EXCHANGE at the same rates of commission as charged by the brokers of that estab-
lishment.—Bankers: The Commercial Bank of London.

REMOVAL.—Mr. JAMES LANE has REMOVED from 33, to 29,
THREADEE NEEDLE STREET, where he continues to DEAL in DIVIDEND
and LEADING MINES, at the closest market price.

Mr. LANE is a BUYER of West Cadron, Treleath, Great Alfred, Sorrel, Consols, Alfred Consols, Rheilod United, Trewetha.

Business transacted in Foreign Shares, and all descriptions of English Stock.

M. R. J. B. BRENCHLEY TRANSACTS BUSINESS as a BUYER
and SELLER in BRITISH and FOREIGN MINES.—INVESTORS, enter-
ing a judicious selection, will find the PRESENT OPPORTUNITY VERY FA-
VOURABLE for PURCHASING at very REDUCED PRICES, with an almost cer-
tainty of realising a handsome return are long. Lists of prices forwarded, and every
information furnished, upon application.—Amongst others, FOR SALE:—

8 Alfred	5 Hington Down	18 Trewetha	10 Wheal Arthur
10 Bedfod	10 South Tamar	4 Treleath	12 Trebene
1 South Frances	1 South Tamar	1 Mary Ann	
Also—			
10 Bryant	4 Gonamona	50 Sorrel Cons.	25 St. Austell Cons.
6 Cilj. and Wentw.	10 Great Alfred	16 Trebavah	10 Trefusis
20 Darren	150 Great Hugo	20 North Treleath	25 Thomas's United
50 Great Badern	15 Orsedd	10 Tremayne	25 Wheal Wrey
Mining Offices, 2, Pinner's-court, Old Broad-street.		50 Cwm Darren	50 Wheal Russell

M. R. W. LEMON OLIVER, STOCK AND SHAREBROKER,
23, THREADEE NEEDLE STREET

Business transacted in every description of British and Foreign Mines.

ENGLISH AND FOREIGN STOCK, SHARE, AND MINING
OFFICES, No. 3, OLD BROAD STREET, LONDON.

Mr. HENRY SIBLEY (late Mr. Peter Watson) will at all times give the best in-
formation; and also BUY and SELL SHARES on the usual commission.

MESSRS. POWELL AND COOKE, MINING AGENTS,
1, CROWN COURT, THREADEE NEEDLE STREET, LONDON.

M R. CAREY, MINING AGENT,
6, MOORGATE STREET, CITY.

M R. E. GOMPERS, MINING SHARE DEALER,
98, GRACECHURCH STREET, LONDON.

M R. W. T. RICKARD, F.C.S., ANALYTICAL CHEMIST,
Assayer of Copper and the Precious Metals, by Special Appointment of
the Chilian Government.

ACORN VILLA, FORD ROAD, OLD FORD, LONDON.

City Office, 17, Gracechurch-street.

M R. NEWTON SAMUELSON, F.C.S., ASSAYER AND ANA-
LYTICAL CHEMIST, 3, HACKIN'S HEY, LIVERPOOL.

M R. FRANCIS RIDGMAN, MINE SHAREBROKER,
TAVISTOCK, DEVON.

M R. W. H. BRUMBY, STOCK AND SHAREBROKER,
No. 1, BRIDGE STREET, BATH, is a BUYER of Wheal Zion, Wheal Gill,
Alfred Consols, Hington Down Consols, and South Bedford; and will SELL West
Polden, Tamar Maria, Castle Dinas, and Great Alfred.

N.B. No notice taken of anything but positive offers.

M R. TYACK, MINE BROKER, CAMBORNE, from his situation
in the best mining district in the country, together with his daily opportunities
of increased experience, is well adapted to GIVE ADVICE to CAPITALISTS disposed
to invest in MINING; considering the present time, a good and favourable oppor-
tunity to invest. Mines inspected by the most experienced agents.

MINES.—Mr. GEORGE SPRATLEY begs to RECOMMEND
parties seeking profitable investments to make a SELECTION from the fol-
lowing, being convinced that most of them will prove advantageous at present prices:

Wheal Buller.	Wheal Kity (St. Agnes).	Clyde and Westworth.
Nant-ar-Nelle.	Ritton Castle.	Llanar.
Boscean.	North Bassett.	San Fernando.
Wood.	East Cadron.	Sorrel.

List of prices, and full particulars of each, together with the value of all shares,
will be forwarded on application.—2, Winchester-buildings, London.

JAMES F. BODDY, 48, THREADEE NEEDLE STREET, LONDON,
begs to call the attention of his friends and the public to the present DEPRESSED
STATE of the MINING MARKET, for INVESTING their CAPITAL in good, sound,
MINING PROPERTY, paying regularly from 12 to 20 per cent. on outlay. No other
investments offer so great advantages as judiciously selected mining stock.

J. F. Bondy is in a position to BUY and SELL in any of the mines quoted in the
general List of the *Mining Journal*, at the closest market prices; and will recommend
to purchasers the best dividend and most promising mines for investment. Every
information will be forwarded on application, likewise a list of prices.

FOR SALE, SHARES in—

Wheat Buller	North Robert	Bedford United	Wheal Edward
Botallack	Molland	West Alfred	Callington
Wheat Zion	Konnergy	Sorrel & Bedford	Wheal Wrey
North Bassett	N. B. Burra Burra	Great Russell	Wheal Norris
Cilj. and Wentw.	North Treleath	Great Russell Hugo	Wrysgan slate
Sorrel Consols	Silver Brook	West Sorrel	

WANTED—

East Gunnis Lake.	Arundell Copper	Hington Down	West Bassett
Great Alfred	Wheat Gill	South Tamar	North Roskear
Alfred Consols	East Tamar	Wildberg, Trewetha	South Cadron

Parties in the country wishing to buy or sell, must please state price and number
of shares, otherwise no notice can be taken of their application.—Jan. 6, 1855.

M R. HY. GOULD SHARP HAS FOR SALE, OR ANY PART:—
20 So. Tamar 430 North Sorrel 50 Bedford Consols 145 Gwntown United
140 So. Tamar 200 Tamar Land 190 Molland 150 Ivybridge United
150 Tamar Maria 50 Sorrel Cons. 270 North Hington 200 Great Wh. Hugo
100 Penlyne Court 23 Trewetha 5 Great Wh. Hugo 150 Wheal Zion
120 West Sorrel 5 N. B. Wh. Robert 10 Alfred Consols 5 Bryant
160 Quint. Down 20 Wildberg 20 Dairhaw 50 Wood.

Every description of shares bought and sold.

FOR SALE, at LOWER PRICES than previously offered, the fol-
lowing SHARES in DIVIDEND-PAYING and PROGRESSIVE MINES:—

15 Herdfoot.	50 Drake Walls.	23 Treleath.	50 Callington.
5 Hington Down	8 Trewetha.	50 Callington.	

30 Trebarwah.	25 North Downs.	100 Herdfoot.	100 Herdfoot.
100 Round Hill.	100 Hope Valley.	100 Bat Holes.	100 Bat Holes.
5 South Towy.	100 North Towy.	50 Pen-y-Gell.	50 Pen-y-Gell.

Address, with offers of number and price, to "T. S. F." 27, Sussex-place, Rother-
field-street, Islington.

MINING INVESTMENT.—T. FULLER AND CO., 51, THREADEE
NEEDLE-STREET, LONDON, beg to call attention to the favourable op-
portunity of INVESTING in BRITISH MINES, particularly in those dividing their
prospects every two or three months, which average from 15 to 20 per cent., with every
prospect of continuance, and being free from fluctuation, such as Consols, railway,
and other securities; and respectfully direct attention to the PURCHASE of SHARES
in many PROGRESSIVE MINES, being in full operation, with efficient machinery,
&c., for the development and bringing the same into a profitable state of working,
which, at present prices, cannot fail to remunerate all who invest; a careful selection
of such alone can be obtained by a daily communication with agents of high scientific
and practical experience of the principal mines in Devon, Cornwall, and Wales.

T. FULLER and Co. will furnish every information to capitalists, either personally
or by letter, and can effect purchases or sales of every description.

MINING INVESTMENT.—Mr. CHARLES GURNEY, No. 4,
CORNET COURT, GRACECHURCH STREET, LONDON, will be happy
to PURCHASE or SELL SHARES, on the usual commission, in all DIVIDEND
MINES, now paying from 15 to 20 per cent.; or in those working under prospects
of early dividends.

FOREIGN LANGUAGES TRANSLATED, and the PROCEEDINGS of PUBLIC
MEETINGS REPORTED, on moderate terms.

M R. JAMES HERRON has SHARES FOR SALE in the follow-
ing MINES:—

20 North Downs	20 Wheal Edward	100 Gola	100 North Sorrel
30 Treleath	20 Wheal Golden	15 Dihurode	160 West Sorrel
300 Molland	20 Wheal Harriett	25 Bedford Consols	160 Great Sorrel
200 Kilkaine	20 Wheal P. & Cinnis	40 East Tamar	50 Trebene
100 Hington	10 North Buller	20 South Tamar	20 Wheal Zion
30 Kilbracken	6 North Treleath	40 Great Badern	20 Altarnun Cons.
20 Tintagel	100 East Froncog	20 North Bassett	20 Stray Park
30 Tamar	20 Sorrel Cons.	40 Tavy Consols	20 East Buller
20 Lewis	10 Trewetha	40 East Russell	20 St. Day United
20 Drake Walls	30 Thomas's United	5 North Robert	5 Alfred Consols
20 Callington	50 Cwm Darren	50 Lydford Consols	10 Santiago
3 Wheal Arthur	50 Cae-Gwyn	50 Wheal Consols	

Mr. HERRON is a BUYER of the following:

5 Wheal Uny	5 West Providence	5 East Bassett	1 United Mines
5 Great Alfred	10 St. John del Rey	10 Vale of Towy	10 Gilmar
50 Cwm Darren	5 Cobre	1 South Frances	1 Wheal Margaret

33, Clement's-lane, Lombard-street, Jan. 1, 1855.

GEOERGE MOORE HAS FOR SALE, OR ANY PART:—
10 Bryant
 100 Kilkaine | 50 Oola | 20 Orsedd | 9 Wheal Uny |

10 Balloon
 5 North Bassett | 5 North Robert | 20 Trewetha | 50 Wheal Russell |

5 East Bassett
 5 North Robert | 10 Tincoff | 20 Wheal Edward |

5 Great Alfred
 5 North Crofty | 50 Tavy Consols | 20 Wh. Kit. (St. Ag.) |

Also, the following SHARES, at LOWER PRICES than have hitherto been quoted:

100 Bedf. and Sortr.	50 East Froncog	10 Millpool	100 Sorrel Cons.
300 Cae Gwyn	100 Great Wh. Hugo	100 North Sorrel	100 Silver Brook
50 Cwm Darren	100 Ivybridge	10 North Treleath	200 West Sorrel
150 East Wheal Vor	300 Molland	10 North Frances	20 Zion

Correct prices of the above will be forwarded on application.
32, Nicholas-lane, Lombard-street.

M R. EVAN HOPKINS, C.E., CONSULTING MINING
ENGINEER.—Mr. HOPKINS may be CONSULTED DAILY by gentlemen
and capitalists—who have invested, or may wish to invest their capital in MINES
or MINERAL PROPERTIES—on all matters connected therewith—home and for-
eign. Also, in every description of METALS, MINERALS, ROCKS and their com-
mercial value—NEW PATENTS, &c., so as to make a judicious selection and avoid
questionable schemes.

Mr. HOPKINS requests his ANNUAL CLIENTS to SEND him their PRESENT
ADDRESS, and a list of the shares, &c., they now hold.

Mr. HOPKINS is now prepared to receive prospectuses and reports on new under-
takings, to give his opinion thereon, and to take an interest and an active part in the
London management of any of the legitimate speculations he may recommend to his
clients.—33, Thurloe-square, Brompton.

M R. ADAM MURRAY, F.G.S., CONSULTING MINING
ENGINEER, 76, CORNHILL, LONDON.

CAPT. THOMAS DUNN, of TAVISTOCK, undertakes to INSPECT,
REPORT, and SURVEY ANY MINES or MINERAL PROPERTY in ENGL-
LAND, IRELAND, SCOTLAND, or WALES. No objection to take the management
of any mine or mines in the neighbourhood of Tavistock.

M R. P. CADELL, Jun., may be CONSULTED on the subject of
UNDERTAKINGS connected with GOLD MINING, including WATER-
COURSES, which are at present the most productive source for investment in California.
Address, Quartzburg, Mariposa County, California, Oct. 10, 1854.

£25,000.—THE SWANSEA HARBOUR TRUSTEES are
prepared to receive TENDERS for the LOAN of TWENTY-
FIVE THOUSAND POUNDS on MORTGAGE of the RATES and TOLLS author-
ised to be demanded and levied under the provisions of the Swansea Harbour Act,
1854, in sums of not less than £100. Interest 5 per cent., payable half-yearly. Term,
seven years. For further particulars, apply to Mr. LEWIS THOMAS, solicitor, Swansea.

M INING MANAGEMENT.—A GENTLEMAN, of considerable
experience in the management of companies worked on the Cost-book System,
and having suitable offices for the purpose, is PREPARED to TAKE the PURSER-
SHIP and ENTIRE TOWN MANAGEMENT of any genuine undertaking. Refer-
ences can be given to the chairmen or to the committees of the companies with which
the advertiser has been connected.—Address in the first instance, with particulars,
to "R. S." Mining Journal office, 26, Fleet-street, London.

M INING.—TO CAPTAINS AND OTHERS.—WANTED, a
PRACTICAL and EXPERIENCED MINER, one who thoroughly under-
stands all his branches, to PROCEED immediately to AFRICA, to that part which is
opposite to SPAIN, to EXPLORE an extensive rich tin and copper mining property.
Terms, £50 per month, and all expenses paid. First-rate references as to ability and
character will be required.—Apply to A. A. WILMORE, chemist, No. 78, Old-street,
Finsbury, London.

PARTNERSHIP.—A GENTLEMAN who can command from £3000
to £5000, and is disposed to JOIN the ADVERTISER in extending a valuable
COAL and FIRE-BRICK WORK, in the Midland Counties (being a person of enter-
prise, and capable of undertaking the active duties of management), will find the
present opportunity offering to him very great inducements and advantages. The
colliery is in good working order, commands a ready sale, and the machinery is quite
new and of the best description. As the parties now engaged in it are of the highest
respectability, none need apply who cannot give first-rate references.—Address, in
the first instance, to "A. B." care of Messrs. Symes, Teesdale, and Sandhills, 33,
Fenchurch-street, London.

DOOK-KEEPING.—An ACCOUNTANT of long standing and ex-
perience is desirous to UNDERTAKE the PERSONAL CHARGE or SUPER-
INTENDENCE of ONE or MORE SETS OF BOOKS, or ACCOUNTS, upon mod-
erate terms. The highest references will be given.—Address, "X. Y." Messrs.
Waterlow and Sons, London Wall.

WANTED, the ASSISTANCE of an INFLUENTIAL GENTLE-
MAN in FORMING a COMPANY for RE-WORKING a first-rate COPPER
MINE, in the best mining district in Cornwall, the secretaryship of which can be re-
tained.—Address, "A. M. Z." Mining Journal office, 26, Fleet-street, London.

Original Correspondent.

PEAT, AS A SMELTING FUEL.

SIR.—In your last week's Journal, there is an article on this subject from a correspondent. The writer commences by stating "that the process patented by Messrs. Gwynne and Co., for the reduction of ores of iron, as described in your last week's Journal, seems in some measure to depend on the use of peat, as a fuel and smelting agent." We beg to inform your correspondent that such is not the case; although we are prepared to prove that peat fuel, as made under our patent, is superior to coal or coke, we do not confine ourselves to the former, as we are aware that in many localities, where iron ore is abundant, there is no peat to be found. Our specification states (pp. 7 and 8):—"We further apply the same said principles and modes of proceeding in the formation of a peat or coal fuel, for the purpose of converting the same into similarly compounded coke, for the usual application of these fuels to the operation on metallurgy. We also at times mix with the peat (when it has not sufficient carbon in itself), anthracite, or other coal containing a large amount of carbon. We also use and apply the same process, or mode of treatment, to all ores, of whatever nature or kind, not confining ourselves to iron. We likewise apply and use the same principle of manufacture, as regards the intermixing of the peat, coke, or coal, of our compounded fuel, with such corrective and auxiliary materials as a given smelting, purifying, or reducing process may require."

Your correspondent states, in the second place, "that much has been said as to the advantages of peat, and its superiority over other fuels; and many attempts have been made to bring it, by compression, into a state of density sufficient to make it equal to the pressure which it would have to bear from the blast of a furnace. My own impression is, that an economical mode of compression has yet to be discovered, without which it can never be advantageously used."

In answer to these remarks of your correspondent, we take leave respectfully to inform him that the density, sufficient, and more than sufficient, to make it equal to his most sanguine expectations, has been already obtained, as well as an economy in manufacture which, to believe, he would require to see in operation.

A very large number of patents have been taken out, during the last half-century, to compress peat; but all have, to a certain extent, failed, owing to erroneous principles, by endeavouring to compress the peat in a wet state, and the small quantity that could be manufactured in a given time, rendered the cost too great to make it commercially valuable.

Your correspondent could not have seen an advertisement, in your Journal, in which Gwynne and Co. offered to contract to put up the necessary machinery to make from one ton to fifty tons of solidified peat, or patent coal fuel, per hour, at a cost not exceeding a few of the gold crushing machines; and although we offered to one of the members of the Government to convert one of their own bogs (Dartmoor) at the rate of 50 tons per hour, to send this fuel to our poor fellows in the Crimea, to burn in the small stoves sent to them in place of wood or coal, we did not even get an acknowledgment of the receipt of our letter, although the nobleman had specimens of the fuel laid before him many months ago.

The Great Peat-Working Company of Ireland possess patents for the process of making solidified peat and charcoal; and for the information of your correspondent and your readers, we will, with as great brevity as possible, state the nature of those patents for the solidification of peat. The peat, as dug from the bog, is thrown into a series of cages, placed in a large centrifugal machine, and deprived of so much of the moisture as to make it ready for the mill, where it is ground to a powder, passed thence through series of cylinders, revolving in a heated chamber, when the remaining moisture is evaporated, and the powder heated to the proper degree for compression; from whence it is carried, from the last cylinder, by two pockets, to the compressing tables, which having passed through, the solidified peat is ready for use. The expense of this process is so trifling, that we refrain from mentioning the cost, but beg to refer your correspondent to the secretary of the company.

Thirdly, your correspondent says, "Nor do I see that this process, patented by Gwynne, correct as it doubtless is in theory, is likely to bring about any great practicable results." And on what grounds, Mr. Editor, does he come to such a conclusion? Is his knowledge of the subject on which he writes so very great, sure, and certain, as to justify him to throw cold water over us and our patent process, just like the manner in which inventors have been treated by the Board of Ordnance and Government officials (see numberless letters in the *Times* during the past month). Your correspondent thinks our process doubtless correct in theory; but does it necessarily follow that it cannot be carried out in practice? All the great and important inventions that have done so much for Britain and the world have been at first pooh, pooh'd!—steam-boats, railways, gas, &c. But your correspondent says, Gwynne's patented process is not likely to bring about any great practicable results. Why? He says the very nature and position of the peat deposit must tend to the inference that it will always contain a more or less per centage of earthy matter, and that this earthy matter differs in its nature and quantity, according to the different localities in which the peat is found, and the rich formations in its proximity. This earthy matter must be got rid of, either before it is put into the furnace, or by the admixture of fluxes in the furnace, in which latter case it must be vitrified, and be converted into slag. The presence of these earths is shown by the large quantity of ash which is produced by the combustion of peat; and if I am correct that these earths differ in different localities, and different strata of peat, I fear it will be found a troublesome fuel in the furnace."

In reply to these remarks, we prefer giving facts and figures. We submitted specimens of our solidified peat to Dr. Lethaby. His report is too voluminous to be given in *extenso*, but we quote the parts bearing on the subject; and should your correspondent desire it, he may have the full report, and a mass of other information, which we cannot ask you to give us space for:—

"The specific gravity of the sample of compressed peat which you sent here on the 1st inst. was as high as 1.140, and its structure was exceedingly hard and dense. The actual stowage weight of one cubic foot of the material was 71.24 lbs. avoidupoise, that of Newcastle coal being about 49.69 lbs.

"The charcoal contained 3.8 of ash; 7000 grains of the peat were submitted to distillation in an iron retort, and the volatile products were conducted through a red-hot iron tube, in the hope that the paraffine, &c., of the tar would be decomposed, and converted into a gaseous hydro-carbon of high illuminating power: the results were—2520 grs. of charcoal, 1320 of ammonical liquor, 360 of thick tar, and 2800 of combustible gas. The gas was found to be entirely free from sulphur, and in this respect it has great advantages over coal-gas. The ashes which remain never agglomerate, so as to form a clinker, and consequently there is little or no attention required to keep the bars of the furnace clear for the draught. The peat is admirably well suited for domestic purposes, and also for furnace operations in large towns, where at the present time the enormous quantity of sulphur evolved from coal during its combustion is a source of annoyance and injury to life and property; it burns quickly, and therefore, produces steam in a short time; it possesses tolerably high evaporative power; it is not bituminous; and, consequently, does not evolve opaque smoke while burning; it is not likely to be broken by attrition; it is entirely free from sulphurates, and is not liable to spontaneous combustion."

Although the ashes are stated at 3.8, we are aware that some specimens contain only 1 per cent.; while others, that are mixed with clay, may contain 30; but no one that knew anything of iron-making would use the peat that contains more than 5 or 6 per cent., but hundreds of thousands of acres can be had with 3 or 4 per cent. of ash. Frederick Oveman, no mean authority respecting iron and steel manufacture, says, "It has been found that turf, or peat, is a most excellent fuel for the blacksmith's forge, in case-hardening steel, forging horse-shoes, and particularly in welding gun-barrels, &c., where its composition is shown to be favourable by chemical analysis. We need not be harrassed in relation to its price (he says), for its utility is so obvious that a liberal expenditure may be safely hazarded." In Styria, sheet-iron and re-heating furnaces are heated by it; and in Bohemia, Bavaria, France, and Russia, it is extensively used in the blast furnaces, and produces, in most cases, very liquid, lively iron. Good turf coal is superior to charcoal in the blacksmith's fire."

Did your space or time permit, we could bring a mass of evidence in favour of peat over coal or coke that would, we believe, cause your correspondent to change his mind; and he will please to remember that Mr. Oveman, and all the iron and steel manufacturers, speak of peat as known by your correspondent; and when we inform him that air-dried peat contains from 20 to 30 per cent. of moisture, he will at once see the advan-

tages to be obtained by our new process. For if wood, coal, or peat contains (say) 25 per cent. of moisture according to Dr. Ure, the 100 parts only contain 75 per cent. of fuel, and the evaporation of that water 1.25th part of the weight of the wood, &c., hence the fuel is of less value in combustion by 8.25th, or 2.75th, than dry fuel.

In the fourth and last place, your correspondent says, "That the great and increasing scarcity of charcoal in this country, which in a few years must make us entirely dependant on our colonies and foreign countries for a supply of iron for steel, cord, wire, and other purposes, requiring superior quality and strength, is a great inducement to seek out any means by which such an undesirable state of things can be avoided; and I am sincerely anxious that researches having this object in view should succeed; and if by this success the immense and at present valueless bogs of Ireland could be brought into profitable play, it would be a great national object attained."

We participate in those generous sentiments expressed by your correspondent in the latter paragraph of his communication; and, with your permission, we will, in another letter, endeavour to satisfy his mind that for the next 500 years England will not need to apply to her colonies or to foreign countries for a supply of superior iron: her sister-island, within three hours' sail of her shores, has all the raw material to supply this want—those three millions of acres of peat bogs—those rich mines—that water-power sufficient to turn the machinery of the world. But with mineral and other wealth in boundless store, she has unfortunately, 20,000 capitalists, all Irishmen, who are so patriotic as to find it for their interest to lend 38,000,000, at about 3½ per cent., to the Government of the richest country in the world. Volumes might be written on that one sentence; and truly have you said, in one of the articles in your Journal, in speaking of the immense resources of Ireland, "Ireland wants a few more such men as William Dargan." How many such could you find in the 20,000 capitalists?—We are, Sir, &c.

Essex-wharf, Strand, Jan. 3.

surveyor, a drawer (I suppose a hewer of wood and drawer of water). No; he must also be a book keeper; and not only a consummate, pure mathematician, but he must know mathematics sufficiently well to command, as with the wand of the magician, their application to mechanical and other physical problems of surpassing difficulty; and a geologist. He is required to possess the profound ingenuity and inventive powers of Watt and Stephenson, and must not only know mechanics and geology, to enable him to teach them to the collier, but he must show their application to the thousands of minutiae which "none but craftsmen ever saw."

Such are, unfortunately, the means adopted by the committee of the Bristol Mining Institute for the accomplishment of so desirable an object as the education of the collier. Am I uncharitable in suggesting the enquiry, Do the committee of the Bristol Mining Institute comprehend the full import and high privilege of their mission? if so, is it not difficult to conceive how such an advertisement could have met with their approval? It is far more extravagant in its demands than any Eastern nabob or Egyptian pasha, who ordered a steam-engine of 300-horse power to be built in the course of a day. After reading Mr. Mackworth's eloquent appeal to the sympathies of the Bristol public to come to the help of the earnest philanthropist—to the help of the philanthropist against the mighty that dwell in the abodes of ignorance and wretchedness—I came to the resolution to offer my humble services to the Institute, with a view to assist, to the best of my ability, in carrying out so laudable a design as the education of the coalminer, on the broad basis of excluding centralisation, for the benefit only of gentlemen's sons; but the reading, with some degree of care, of the advertisement above alluded to, showed in the clearest manner that the management of this institution is entirely in the hands of incompetent individuals, so far as the objects contemplated are concerned, and, therefore, "it is not, nor it cannot come to, good." Nothing, then, remains but to wait with patience and resignation a more favourable opportunity to serve in an humble capacity the interests and promotion of the welfare of my fellow-workmen.

The voice of the honourable and learned member for Lymington has been heard to advise the councils of war, asking the Government what has been done by them to alleviate those calamities to which the colliers are exposed while in pursuit of their daily occupation. The Hon. Henry Fitzroy, in reply to Mr. Hutchins's urgent enquiry, states, on the part of the Government, that the subject about which the honourable member appears so anxious was now receiving the most deliberate consideration of the Legislature, and a bill will be prepared during the present session for the sanction of the House of Commons. I do hope this bill will not only provide for the safety of the miner, but the advancement of his social position, by increased advantages, and stimulants for the education of one million, and thus be worthy of the high character, the enlightened views of social and foreign policy, which have raised the noble lord, the Home Secretary, to the highest position in the confidence and esteem of his fellow-countrymen. This may be, and I trust it is, an appropriate time to suggest a few more observations, while the Government is weighing in the sacred balance of Justice the means best adapted for the protection and elevation of the miner from a state of ignorance, which is next in sable darkness, in the awful catalogue of earthly calamities, to chained liberty and free exercise of thought and knowledge by means of that avaricious despotism of the throne and the altar.

Special importance has been awarded by the Committee of Accidents in Coal Mines to the propositions discussed and approved of by a conference of viewers, held at London, in April and May, 1854. The Committee have called the Government's "especial attention" to the proceedings of this conference. It will be interesting to examine into the constitution of this conference, in order to see if its decisions are worthy of that confidence which the Committee has placed in them, and how far they are justified in recommending them for the serious consideration of the Home Office. This conference, it appears, was proposed by the Committee of Accidents in Coal Mines, and, therefore, it was to be expected they would regard its decisions with almost religious veneration, and recommend them as applicable to the high purposes of legislation. Hence all interests, however conflicting in their nature, were to be faithfully represented at this immaculate congress—all grievances discussed, and, as far as compatible with the interests of the viewers, removed. The Government was requested to send its representatives, their inspectors—men of most extensive experience, combined with a profound acquaintance with physical and pure science; the delegates of the colliers were summoned peremptorily to London to assist in the councils, without knowing the subjects of discussion, or the objects for which the meeting had been called. The scientific viewers formed the alpha and omega of the meeting; they conducted its business, to serve their own selfish views, with consummate ability, and issued circulars to the coalowners in the mining districts which met with an indifferent response. The object of these circulars was to invite the co-operation of the coalowners to certain fixed resolutions, which, in all probability, were agreed to by the viewers, not coalowners, before the meeting at the Craven Hotel took place. The constitution of this meeting was as rotten at its core as Old Sarum; and the slightest consideration will convince the enlightened mind of the noble lord, although his attention has been especially called to its proceedings by the Committee, how little importance should be attached to the views of men whose only motive for action is self-aggrandisement, at the cost of suffering colliers. Nicholas Wood, Esq., coalviewer, was called to the chair. It will be remembered that this gentleman stated to the Committee that Government inspectors should be "viewers of collieries," at a salary "varying from 600*l.* to 800*l.* a year." From my impressions of the character of Mr. Wood, (the last time I had the honour of speaking to him was in a board at Hetton Colliery,) I am surprised that he should fix the weight of his name to a recommendation which places his own class in positions of emolument—800*l.* a year—and depresses the exertions of labour, by neutralising every incentive to an honourable and useful career on the part of the miner. The chairman was supported by forty-eight viewers, robed in all that wealth and education can possibly command; five Government inspectors, of the same class nearly, and only four humble representatives of 220,000 colliers and their families, making a total, perhaps, of not less than 1,000,000.

It is an instructive lesson to read, in the reports of this meeting, the struggling advocacy of these representatives, without the advantages which education never fails to confer, in support of a measure—the privilege of being Government inspectors, if qualified—which, I am certain, the voices of one million will never cease to urge by all legitimate means on the consideration of the Home Secretary. The ultimate issue, however, of such an unequal contest is readily imagined; the whole of the propositions of the conference, prepared with great care by the viewers, were agreed to; and, in order to give the semblance of unanimity to their proceedings, this cunningly-educated body—I have no juster epithet at hand—adopted an artifice, which has been, and still is, used with good effect by the Emperor Nicholas on the tender susceptibilities of the Germans, and thereby produced a feeling on the minds of the colliers' representatives, in apparent unison with the views of the meeting, and entirely adverse to their own future interests. Nicholas, of marvellous import, immediately carried the resolutions to the Committee of Accidents in Coal Mines, and Mr. Hutchins was not slow to make particular enquiry as to the exact import and high character of this celebrated contest, and how far its decisions would give weight to the recommendations of the Committee to the noble lord. He ascertained from Mr. Wood, that the delegates of the colliers attended the meeting, and he was particular about this for an obvious reason; but he declined to ask any questions respecting the manner of attending, which would militate against the unanimity which Mr. Hutchins was so anxious to establish. "Mr. Wood explained the object of meeting to deputation." "Mr. Jude," very justly replies, "workmen's deputation are not prepared to go into details; have not had time to do so." This quotation is from the report, and, I ask, can the noble lord, in justice to the high interests and aspirations of one million, so usefully employed as are the colliers, place the slightest confidence, as to unanimity, in propositions submitted to, and passed at, a meeting, so constituted as that of April, 1854. Viewers only must be Government inspectors, at 800*l.* a year? The last struggling words of Mr. Swallow are significant—"Though the meeting may not agree to sub-inspectors, they ought to agree to inspectors of different grades, with large and small salaries, as an incentive to industry." What reason can be justly assigned by the viewers why a workman, properly qualified, may not be a Government inspector of mines? A practical acquaintance with the details of mining operations cannot possibly furnish any just ground of complaint: perhaps it is the absence of an acquaintance with the pure and mixed sciences which the viewers so very much deplore. I think I can afford to smile at this. What, the absence of science? this is a rich idea, after mystifications on the productions of Mr. Mackworth and Mr. Elliott, neither of whom has been bold enough as yet to reply to my criticisms on their lubrications. There is an obvious reason for this silence, which is not

the *Mining Journal*—Wanted, an experienced teacher and lecturer, acquainted with the art of coal mining, with its best examples and its latest improvements, as well as with surveying, drawing, book-keeping, and the application of the sciences of mathematics, mechanics, and geology. Salary not under 200*l.* per annum. Detail of qualifications and testimonials to be sent to Mr. Handel Copham, Shootwood Lodge, near Bristol, on or before the 1st of January, 1855. All applications to be in writing.

In other words, of plainer import, the committee require by this advertisement one living individual of most singular acquirements and natural endowments, a teacher of enlarged experience—lecturer, I suppose, of the popular kind—No, is the response; he must of necessity be a collier, a

that they treat my remarks with disdain and contempt; this would be exhibiting a greater degree, if possible, of obstinacy than before, as they must have learnt ere this that my remarks are founded on the laws which regulate alike the statical and dynamical condition of material bodies. These laws may be seen by all who can appreciate their existence, as well in the silvery dewdrop, as it falls from the leaf of the scented rose, as in the stately Neptune, as it sweeps the heavens in its eccentric course.

With respect to the practical knowledge of coal mining, it would be satisfactory to know in what the scientific viewers excel the best workmen; such, for instance, as the deputies, the butties, the upper class of hewers and shaft-sinkers; cancel the information of these parties, and the scientific viewer, with few exceptions, would not be able to command sufficient practical resources to encounter successfully any undertaking which presented more than ordinary difficulty. In accurate theoretical knowledge, so far as its practical application depends, the workmen—not as a whole, perhaps—are superior to the viewer; as he is in most really useful acquirements, save and except the folding, addressing, and dictating a letter. In these cunning devices, drawing-room chit-chat, and other accomplishments to amuse the fair sex, the workman, I confess, is far behind the viewer; but I do entertain a hope that the noble lord will consider the advantages and encouragement of labour, and establish such an incentive to further its development, that none of these accomplishments, if considered necessary, shall be left uncultivated by the miner.

Dec. 31. COAL MINER.

COPPER MINING, AND COPPER SMELTING.

SIR.—Will you please state the grounds on which your assertion is based, that "the profit made at the Alten Works last year was principally on the smelting?" or what was the average produce of the ore, and what the price with which the smelting-works were debited for the same?

We must not run away from the original point by reference to the Elbe Copper Works, or Liverpool or Staffordshire. The point is, are the intelligent, enterprising, and wealthy copper miners of Great Britain the helpless spell-bound set which your correspondents and yourself would make them out to be, by representing them as sacrificing at least 20 per cent. of their property by selling it to the highest bidder, instead of smelting their own ores, and selling the copper? My mining friend assures me that this is not so—nay, further, that he believes that the smelting of copper ores by miners, if generally followed, would lead to ruinous competition in the disposal of the copper, and probably end in their obtaining 20 per cent. less, rather than 20 per cent. more; besides involving them in manufacturing and mercantile operations, requiring large capital and special knowledge, and accompanied by the inevitable risks and uncertainties of such things.

The point at issue is what I have stated above, and not whether smelting is profitable. Both you and I may take it for granted it is profitable, or who would continue to employ their capital and time upon it? And why should copper smelting, which I am told employs a capital of at least a couple of millions of pounds, and the time and energy of some of the most talented men in the country, not yield profit upon that capital, time, and energy? If the copper miners, in addition to the capital necessary to work the mines, were called upon to find capital to smelt and manufacture, and to run the risks of trade, would they not have a right to expect greater profits than if they were miners only? On the other hand, if the profits on smelting were exorbitant for a time, they could not be long continued in this land of money, and of restless desire to employ it.

If the existence of copper smelting-works may be taken as evidence that smelting is profitable, so the existence of mines is proof that many of them also pay dividends. I fancy that neither miners or smelters would long carry on their business for the good of the public.

To me—a mere reader of your Journal—it did appear strange that a great body of men should be so blind to their own interest as to continue year after year to sacrifice their property in the way they are represented as doing; and my enquiries have satisfied me that not only is it not so, but that those most interested in the welfare of copper mining know that it is not so.—*City, Jan. 3.* YOUR READER.

[Some remarks on the subject of this communication will appear next week.]

OUR MODERN EL DORADOS.

SIR.—My letter (with, by the way, several small consequences of having been hurriedly "read"), which you did me the favour to insert in your last week's *Mining Journal*, has been the means of drawing forth a host of communications from the shareholders of the Pottimore—many of them blaming me in the defect, some in the excess, of my information; but all requesting the favour of private information concerning, &c., *Magna pars, magna solitudo*. Making this remark conform to my convenience, I had intended to adopt it, by asking permission to reply in general terms through your coming Number.

A change, however, has come o'er the spirit of the dream." The camp is all bustle. The prease of the coming storm was unheeded; it has set in with unexpected *brusquerie*. In spite of the skill of man's handicraft the tents, which had been battened down almost to the exclusion of the light, are seen quivering in the wind, or shredded like so many "cats'-o'-nine-tails" ready to whip the backs of all miserable sinners within their reach. And what helter-skelter as the flimsy pendice is torn from its fastnesses! What hell-mell and confusion to the luckless occupants—the majority of whom are holding on, with the tenacity of a death-grip, to straws, or grasping at the forlorn hope of reported succour; whilst one, and he one of its oldest inhabitants, who had been hob and nob with his *conferees* for upwards of two years—resigning himself to his fate, is wafted away to the bridge of despond, where, according to the last published accounts of him, he was awaiting perhaps to be blown, like the good old general at Balaklava, out of one quagmire into another; whilst another invokes the opportunity of eschewing the further emoluments of office to seek the repose of renewed domestic quiet, fireside hopes, and banded puppy dogs. In the meaning of all this, perhaps may be found answers to many of my querists. "A change comes o'er the spirit of the dream."

Sweating Room! Balaklava (the Little), the 3d Jan., 1855.

THE STORM.—NOTICE!—The General Commanding-in-Chief having had intimated to him that certain reports, prejudicial to the character of himself and staff, have been promulgated, has drawn up a *reply* to that report; and believing the only effectual way to crush such calumnies is to disseminate that reply through all ranks and grades of men, thereby orders that the — be set apart for impartially considering the said report, at this office, where the doors will be thrown open to all, excepting as much as possible *suspicious* persons (see Rule 3); and, further, that the said reply to such calumnious reports shall be printed and distributed, without let or hindrance, among, as much as possible, ourselves.—ETCETERA.

W. MARTIN,

Ex-Sec. Pottimore, registered holder of the 50,000 shares; but with no connection whatever to the "Pro. the purser," of a Mr. Frank Seiby.

Walham-green, Jan. 5.

MANAGING DIRECTORS.

SIR.—Although much has been done, both through the medium of your Journal, and by agitating at public meetings, towards the reformation of the present management of companies, yet the facts are still the same—directors and their jobbing schemes, shareholders and their ruined pockets. Indefatigable individuals have exerted themselves to their utmost, and have endeavoured vigorously to put a stop to all jobbing schemes and "dodges," but have not received in return that support and encouragement which their efforts and energy unquestionably deserve. Success, in any undertaking worthy of trial, whether it be in mining or in any other enterprise, depends on the management, and on that alone. But, if that management be of an indifferent character, and the objects of the managing directors be solely to enrich themselves, how, then, I say, can the results be but unsatisfactory. Hence, the cause of failure in many of the numerous mining speculations now afloat is solely owing to the miserable management under which they endeavour to exist; and again, on the other hand, unprofitable mines are made to produce dividends by being managed in a fair and proper manner. Thus it is, that even legitimate mining is looked upon, through the proceedings and results of questionable speculations, with suspicion, and adventurers are consequently afraid to come forward.—*Regent-street, Jan. 1.* SCRIBO.

NEW THEORY OF THE UNIVERSE.

SIR.—I observed in your Journal of the 16th Dec. an article under this heading, being an abridgment of the views of Dr. Bedford, of New Brighton, and which were designated as new and peculiar. I, however, beg to state they are at least as old as the time of La Plaie, who started an hypothesis with regard to the formation of the solar system, and extended it to that of the whole universe, similar to the one of Dr. Bedford. What follows is quoted from the *Wonders of the Heavens*, by Mr. F. S. Williams, who derives his information direct from the *Vestiges of the Natural History of Creation*, a work which I do not happen to have by me:—"La Plaie conjectured that in the original condition of the solar system the sun revolved upon its axis, surrounded by an atmosphere which, in virtue of an excessive heat, extended far beyond the orbits of all the planets, the planets as yet having no existence. The heat gradually diminished, and as the solar atmosphere contracted by cooling, the rapidity of its rotation increased by the laws of rotary motion, and an exterior zone of vapour was detached from the rest, the central attraction being no longer able to overcome the increased centrifugal force. The zone of vapour might in some cases retain its form as we still see in Saturn's ring; but more usually the ring of vapour would break into several masses, which would again coalesce into one mass, and revolve about the sun. Such portions of the solar atmosphere, abandoned successively at different distances would form planets in the state of vapour. These masses of vapour, from mechanical laws, would have each its rotary motion; and, as the cooling of the vapour still went on, would each produce a planet, that might have satellites and rings formed from itself, in the same manner as the planets themselves were formed from the atmosphere of the sun." This is sufficient to show that the two theories are identical. Moreover to illustrate this, a very interesting experiment was formed by Professor Pisteau, of Ghent, for the particulars of which I refer you to the *Vestiges*. L. D.

Ty-Gwynne, South Wales, Dec. 30.

THE BRITISH AUSTRALIAN GOLD MINING COMPANY.

SIR.—In a letter inserted in your Journal a short time ago, Mr. Guedalla threatened the chairman of this company that, unless he specifically called a meeting to wind it up, he would publish the history of the "concoction." It is impossible to read that letter without being convinced that it was either dictated by some personal animosity against the directors, or that the writer was entirely ignorant of the company's present position. Mr. Dyer, the superintendent in Australia, was connected with Messrs. Fox, Henderson, and Co., previous to accepting his present post; a statement made by him, my, therefore, be regarded as a true one.

In the *Mining Journal* a short time ago it was announced that the directors had sent out an engine to their Australian superintendent, who stated by the "last" advice received from him, that he could wash 30 tons of earth per day, at a cost of 25/-, or say, 1/- per ton. This earth would return at the worst 3/- 10/- per ton, or a profit per day of 50/- or less than 450/- per week, or 20,400/- per year, on a capital of 63,000/- Only 63,000 shares are issued.

In the face of this, we are told by Mr. Guedalla that its history would resemble that of the "Great Doo and Diddle Gold Silver, Copper, Brass, Smash, Dash, and Crash Company," which was "ridiculously described" by some one who describes himself as "A Shareholder." Messrs. Medwin and Hall's list of engines sold includes one to the British Australian Company, so that it is clear one has been bought and sent out, and that the directors will, if possible, bring the concern to a profitable state. I

do not deny that the system of keeping secret the accounts and reports from the superintendent is a wise blot on the company, but why did Mr. Guedalla wait so patiently until favourable reports were received, and then bring forward a proposition to wind up? If the shareholders would communicate direct with Mr. Dyer, or through a mercantile Australian house, the real value (which is enormous) of the company's property in Australia might be discovered.

Mr. Guedalla has picked out the British Australian for a long time as the mark for his vengeful shafts, while he stated of the Australian Freehold that "something might yet be made of it," although it has spent 40,000/- to find that no gold has ever existed in its "freehold estate;" he is now, I believe, a member of the committee for winding it up, and may, perhaps, yet make "something" of it for the poor shareholders. He has been silent on the subject of the Pottimore, Devon Britannia, Penmaen, &c., and though his efforts may be meant for the good of all, though those efforts may have been well directed, it is ungenerous to single out a weak company, just reviving, and which, if rightly managed, will yet rank with the St. John del Rey. PURIMA.

Meetings of Mining Companies.

ROYAL SANTIAGO MINING COMPANY.

The half-yearly meeting of proprietors was held at the offices of the company, New Broad-street, on Wednesday, —Mr. JOHN TAYLOR, Jun., in the chair.

The CHAIRMAN said, in the absence of Sir I. L. Goldsmid, he would take the chair. He would call upon Mr. Dockray to read a statement of accounts and report, and could assure them it was a matter of considerable regret that they could not come before them under more favourable circumstances; but they must lay the facts before them, and should be glad to take their opinion as to the course to be pursued in future.

The SECRETARY then read the notice convening the meeting, and the following report of the directors:—

The directors have now to lay before the shareholders the statement of the operations in the mines, and the audited account for the half-year ending 31st Aug. last. The quantity of copper ore obtained is 495 tons, and 33 tons of precipitate—of which 322 tons of ore, and 13 tons of precipitate, have been sold, and produced (nett) 3229/- The barque, *Sir Isaac Lyon Goldsmid*, was dispatched in November with coals and materials for the use of the mines, and will be loaded with cargo of 420 tons of ore, &c., about the beginning of this month. A part of this cargo will form the remainder of the half-year's raisings—viz., 243 tons of ore, and 13 tons of precipitate, both of which are taken into the present account at the estimated net proceeds of 3184/-, and make the total receipts, 6413/-

The monthly accounts on the table exhibit to the meeting the expenditure in working the mines, transport of ore, cost of timber, materials, &c., for the same period—an abstract of which is annexed, and amounts to the sum of 10,945/- 2s. 2d. In this is included the sum of 1750/- paid for rent of pertenances, &c., and for a cargo of timber, which will be used in the subsequent monthly workings of the mines; and being already paid for, and charged, the expenses of the current half-year will be proportionately diminished.

The sinking of Taylor's shaft on the lode in the Perservanda Mine, and opening the ore ground east and west of the shaft, have been vigorously pushed forward. Several interruptions to the regular course of working, however, occurred by the twisting, and finally the breaking of the shaft of the new steam-engine. It was temporarily strengthened into a stronger one to replace it had arrived, but much hindrance to constant returns of ore arose from this occurrence, and from two falls of ground near Taylor's shaft.

The late letters from the superintendent report the ore to be less concentrated in the lode in the bottom of Taylor's shaft than it was; and to the extent of 5 fms. to the east and 3 to 6 fms., to the west of it, the lode is yielding but from 2 to 4 tons of ore per fm.; but beyond this the lodes are hard and poor. Considering, however, that over 5000 tons of ore have already been obtained, and shipped to the company from the Perservanda group of mines, and the confident expectation of Capt. Trewick, the late manager, whose opinion on the mine was embodied in the report made to the last meeting of the shareholders, that this coarse of ore in the lode would at 70 fms. in depth, probably much exceed in productivity the upper level, and be found remunerative, the directors are of opinion that it for the interest of the shareholders that the opening of the ore ground to a greater depth should be prosecuted with vigour, and that the shots of rich grey ore found at Goldsmid's and Discovery shafts should be followed and tried in depth.

The available capital of the company requires to be augmented to give effect to either of these operations; and the directors have no alternative but to make a call of 1/- per share on the 7000 shares of the company, payable on or before the 10th of March next, subject to the conditions stated in the certificates held by the proprietors. The certificates upon which the call is paid must be lodged at the office of the company to have the payment endorsed thereon, when aforesaid will be delivered to the holder to make such payment to the bankers of the company.

Mr. TAYLOR said he was ready to answer any question upon the report and statement of accounts; or, if the meeting wished, he would proceed to make a few remarks upon the state of the mines, and the views of the directors upon the subject.

A PROPRIETOR wished to know what the real working capital was at present?

The SECRETARY replied that to the 1st Sept., the date of the accounts being made up, it was 5272/- 17s. 5d., but since that time it had been slightly diminished.

A PROPRIETOR wished to know whether any negotiation was going on with the Cobre Company, for the sale of part of the Santiago property, which might prevent the necessity of a call?

The CHAIRMAN said the company must replenish their funds, and he could readily suppose that, although there were rich men amongst them, who were both able and willing to contribute their quota, there were also many small proprietors to whom, in times like the present, it must press hard. The terms offered by the Cobre Company were not such as the proprietors of the Santiago were likely to accept. They were not willing to treat upon a fair basis, knowing the value it would be to them at some future time.

With regard to the capital, the directors had no means of knowing who the proprietors were, except those who came to the meeting; it could not, therefore, be expected that the directors would run much risk. Temporarily they had to seek some small assistance, but the time was coming that it would be repaid by the ore bills. It was quite necessary that the directors should replenish the funds of the company, if they continued the same vigorous course of working; it was, therefore, their intention of making a call of 1/- per share, which would provide them with funds for a considerable period; he hoped for 12 months, and before that time they ought to make a discovery.

Mr. TAYLOR here explained at some length, by a section, the exact position of the working of the mines. At Discovery shaft there were indications of rich grey ore, and, speaking of it simply as a miner, the prospects were excellent. He would remind them that they were in the Cobre district, and the Cobre Company did not cut the rich lode until the 70. He should recommend to the 70 with all possible dispatch, but he would not advise stopping until they reached the 100, after which, if unsuccessful, they might consider whether it was advisable to proceed.

(The (chairman) would make one remark as to the actual loss on the half-year; it was, in fact, only 2600/- and 1800/- worth of timber, sent out and paid for, was included in the account; and they had no reason to expect any material alteration in the quantity of ore received. The copper Ticketing Paper for the 25th Nov. showed that 385 tons were realised 6929/- 8s. 6d., proving that with regard to quality it was very encouraging, and they only wanted a little more in quantity to make it pay cost, and leave something over. With regard to the works, they had gone on tolerably well, with the exception of the interruptions caused by the twisting, and finally the breaking of the shaft of the new steam-engine, which had been replaced. Some hindrance, however, to constant returns of ore arose from this circumstance, and from two falls in Taylor's shaft. His (the chairman's) opinion had been confirmed by Mr. Trewick and another agent, that there was a good chance of success, if they forced forward west to the mines of Cobre, which would be accomplished by working Discovery shaft more effectively. He had no other points to speak upon, but would state it was the opinion of the directors that the mine was far to valuable to abandon, it being in the immediate vicinity of the Cobre, which was one of the richest mines in the world.)

A PROPRIETOR said 7000 shares was a very awkward number. Could they not increase the shares to 10,000, which would give a larger capital?

The CHAIRMAN reminded them that a call was anticipated in July last, but the directors were always desirous of deferring it, until necessity staled them in the face. They had no power to increase the shares; the constitution of the company was decided upon the scrip.

Dr. Swooz expressed his admiration of the frankness and candour of the directors, which he was sure gave every proprietor confidence. All mining was speculation, for good or evil, and the question was whether they would forego the operations, or advance the money to enable the directors to go on. He remembered when the shares of the company were worth 35/- each, and instead of coming to pay used to come to be paid. Would they now pay another 20/- per share to go on? He thought the directors so straightforward and honourable, that he should with much pleasure hand over that portion of the money required from him, and begged to move that the report and accounts be received and adopted.

Mr. FAWCETT, in seconding this motion, said it was extremely desirable that the directors should have ample funds in hand. The negotiation with the Cobre Company might have had a different result if they had had 10,000/- in their bankers' hands. As to the question of going on, he could scarcely think there could be a difference of opinion on the subject: if they were entering upon a new mine, they would think it both reasonable and sensible to advance 7000/- He was no miner, but he thought they stood in an excellent position, and all the proprietors had to do was to arm the directors with funds, so as to enable them to get down to the points suggested by the chairman. He was certain no proprietor would think of abandoning the mine with such prospects before them, and, therefore, cordially seconded the resolution, which was carried unanimously.

The CHAIRMAN said the following letters were received since the report had been drawn up, and which contained the latest intelligence received by the directors:—

Cobre, Nov. 23.—At Taylor's shaft, the lode is as good as formerly reported, and appears to be extending to the east more than it was. The 62 fathoms level, east and west, are at present poor. In the 56 fm. level east there is no perceptible alteration since my last letter. The stops in the back of the 44 fathoms level east have improved since I wrote: we are breaking a good quantity of ore from this station. The stops in the bottom of the 44 fm. level east continue the same as formerly, producing a good quantity of ore stuff. The 44 fm. level west continues poor. We intend shortly to cross-cut north and south from this end for a few fathoms each way. At Angelita, in the 10 fm. level west, there is a good stone of ore at present in the end; this end is so changeable that we can hardly say much about it. In the adit end east there is a good stone of grey ore in the end, but does not appear to hold down. As soon as we get a little further in, we will try the backs, to see if they are better; there is a little ore in the end in the soft part of the lode. The north or hard end is coming round to the south, and apparently uniting with it. The 62 fathoms level cast is still very poor; a large stream of water is coming out of the north end. We intend to cut in a little in that direction to prove it. The 56 fm. level east is as last reported; but little has been done there for the past week. The winze below the 56 fm. level east continues producing some good ore; the stops in the back of the 56 fm. level west are about the same as last reported. In the stops in the bottom of the 44 fm. level east there is no particular alteration since my last. The stops in the back of the 44 fm. level east are much the same as formerly mentioned. Unfor-

tunately we had a slight run there on the night of the 25th inst., which will impede us breaking ore from thence for two or three days. The 44 fm. level is still poor. A branch of mundic has come

2s. or 2s. 6d. declared at this meeting, and he (Mr. Stibbing) had bought shares since the last meeting on the faith of that statement.

Capt. M. FRANCIS : So we should if the mine had not been stopped.

Mr. THOMAS said the shareholders might rest assured there was more ore on the mine than would pay any costs.

Mr. CLEMOW suggested a call of 1s. per share, which would give 250s., and enable them to go on for a time. The mine was laid open, and they were told by Captain Matthew Francis that they could at once proceed to raise ore.

Capt. FRANCIS : You could do so in about a week.

A SHAREHOLDER wished to know distinctly from Capt. Francis what was likely to be the average produce per month.—Capt. FRANCIS : At the very lowest 16 tons. It would be worth 200s., and I think it might be worked at 130s. cost.

A SHAREHOLDER thought they had better make a call of 2s. per share.

Mr. CLEMOW was of opinion, that under the circumstances a 2s. call would not be responded to.—Mr. HILL concurred with Mr. Clemow. If more money was required they could make a further call.

It was then resolved that a call of 1s. per share be made, payable forthwith.

Mr. CLEMOW said, that as Mr. Thomas had intimated that he would have no objection to give up the agency (and he could almost wish that he would do so, for the mine ought not to suffer through the private piques of parties), he would propose that a committee of management be forthwith elected. He (Mr. Clemow) was connected with several mining undertakings, and he had always found an efficient committee of the utmost importance. Had there been one in this instance he was satisfied they would have been in a very different position. He would, therefore, move that a committee be formed of five shareholders, three to form a quorum.

Mr. DUNSFORD seconded the proposition, and a committee was appointed, consisting of Dr. Clarke, Messrs. Hill, Stibbing, Clemow, and Weeks.

A SHAREHOLDER proposed that the committee be paid their expenses for attendance.

Mr. HILL thought they were not in a position to talk about remuneration at present.

The SHAREHOLDER who made the proposition thought it as necessary to make an allowance for cab-hire and other expenses when a mine was under a cloud as when it was in prosperity; it was hardly fair to tax gentlemen with expenses in addition to loss of time.

Mr. HILL : The services are voluntary, and I should be sorry for it to go forth to the world that in our present position we had a paid committee.

Mr. CLEMOW expressed a similar opinion, and the subject dropped.

Mr. HILL informed the meeting that he and another shareholder, from Southampton, had inspected the mine since the last meeting, and that everything turned out as it had been represented, and even better, and he could only express his regret that the works had not been proceeded with. He thought it right, and only fair, to state this in justice to Capt. Matthew and Absalom Francis.

Mr. CLEMOW proposed that Mr. Thomas should immediately write to his son, to inform him that the whole of the October costs would be paid by Saturday next this day. Thanks were then voted to the chairman, and the meeting separated.

TAMAR SILVER-LEAD MINING COMPANY.

An adjourned meeting of shareholders was held at the London Tavern, Bishopton, on Tuesday, for the purpose of receiving the reply of the directors to the report of the committee of investigation.

Mr. HADOW having observed, at a quarter past one, that Dr. Spurgin, the chairman of the last meeting, was not present, moved "That Mr. G. B. Carr do take the chair."—Mr. G. B. Carr said he had no objection, he was not compromised by the report of the other directors, which he had not seen.

Mr. DUNSFORD said, Mr. Carr would not be at all compromised by taking the chair.

Mr. Carr then took the chair.

The CHAIRMAN hoped they would conduct the meeting as men of business, and that all personalities would be avoided. It was a matter of business, and ought to be discussed as such. He would first propose that the minutes of the last meeting be read.

Mr. BARNARD then read the notice convening the meeting, and the minutes of the last, which were unanimously confirmed.

The CHAIRMAN said, he would now call upon Mr. Barnard to read the reply of the directors to the report of the committee of investigation.

Mr. BARNARD then read the reply of the directors, as follows:—

We, the directors of the Tamar Silver-Lead Mining Company, cannot permit the report of the committee of shareholders, appointed by a resolution of the general meeting on the 2d of October, 1854, to remain unnoticed; because many of the circumstances stated therein are distorted, the inferences drawn are fallacious, and the opinions expressed are unwarranted by just consideration of the affairs and prospects of the company, and the terms and regulations provided for its management. No unprejudiced person who was present at the adjourned general meeting of the shareholders on the 12th of December last, could have failed to notice that, under the semblance of a wish to afford the directors every facility to examine the statements of the report, and give their explanations thereto, there was a predestination on the part of many of their avowed opponents, to resist any appeal by the directors for an opportunity to do so, and that feeling was distinctly evinced by the non-compliance of the meeting, with the very reasonable request of the chairman, to withhold the publication of that document until the directors had been furnished with a copy of it, and had some short time allowed for their reply. And we are entitled to complain that the contents of the report have, in breach of fact, been as fully advertised in the *Mining Journal*, in the shape of a report of the meeting, as if that document had appeared *in extenso* in the advertising columns; for it will be remembered that the word "advertised" was, with the consent of the mover and seconder of the second resolution, and of the meeting, struck out, and that resolution was intentionally limited to the printing and circulation of the report among the shareholders, so that the directors should not be prejudiced by the public circulation of the *ex parte* statements of the gentlemen who made the report. We are aware it may be replied that the reporters were present, and that the committee could not prevent them publishing whatever occurred at the meeting, but such a reply would only be a subterfuge, as the proprietors of the *Mining Journal* have since been supplied with a printed copy of the report, and the lengthy paragraph in that Journal of the 23d Dec. was but an epitome of its contents, with some few notes by the reporter.

With reference to the report itself, we do not think it at all necessary to go into all the details, or to negative *seriatim*, all the fallacious statements and inferences with which it abounds, as we feel sure that, as a board, we have at all times bestowed our anxious attention in the promotion of the best interests of the shareholders, and we shall be fully prepared to justify our management whenever called upon to do so; there are, however, some parts of the report to which we beg to direct distinct attention. It is stated therein that Mr. Stainsby is a director, as well as a paid officer of the company, and we say it is precisely in that character that the other directors have co-operated with him; if he had not been a director, we should not have placed so much confidence in him. Mr. Stainsby has kept the accounts of the company, but the general management of the mines has been carried on under the immediate direction of the board; and the directors have not admitted, as the committee assert, but on the contrary deny, "that the business of the company is conducted by five directors nominally, but really by one," and there has not been an entire delegation of their duties to one individual of their body. It is also stated in the report (p. 11) that "taken as a whole, the accounts laid before the meeting are a correct transcript of the company's books, and accurately enough represent the company's financial position on the 27th of September last;" and yet the gentlemen presenting that report announce, as one of their conclusions (at p. 28), "that false entries have been made in the accounts at the London offices." So much for consistency. We could show others of their deductions to be equally absurd; but we will at once advert to the main feature of their report, which is in effect, that the directors have allowed Mr. Stainsby to have an undue control of the funds, and that he has omitted to pay into the company's bankers the proceeds of ore bills as soon as they were received. We believe the tabular statement of those bills at page 12 to be correct; but the committee have evidently wished the shareholders to infer that the affairs of the company have not at any time justified such a proceeding on Mr. Stainsby's part, and that the directors have neglected their duty in permitting it; but we say that those gentlemen have unfairly omitted to mention facts which would have given a perfectly different aspect to those transactions; and that they would have better shown their desire to investigate the real position of the company, and report impartially thereon, if they had stated the whole truth.

Those who are conversant with mining adventures, well know that there are occasions in the history of a mine, when its assets being unavailable, the immediate advance of money for its working expenses becomes imperative to prevent its ruin, and such critical periods have been frequent as regards this mine; and, if at those times Mr. Stainsby had not personally lent the money required, the workings must have been absolutely stopped. Those advances have been made by Mr. Stainsby from time to time during many years, and have amounted to a very large sum; but, in corroboration of this statement, we need only go back as far as the 21st of October, 1848, and between that day and the 5th of May, 1853, Mr. Stainsby had actually lent the company, under such exigencies, no less a total sum than 18,552s. 9s. 2d.

The directors, therefore, being cognisant of these facts, and of the probable requirements of the undertaking, have, in the exercise of their discretion, and for the true interests of the adventurers, allowed Mr. Stainsby to have, under their control, the full interim management of the bills and accounts of the company. We say interim, because Mr. Stainsby has never been in default at the periods when he has been required to make up his accounts, nor has he ever failed to pay over any balances in his hands on request. These are not mere assertions, but stubborn facts.

[A detailed statement of accounts is here inserted of cash advanced by Mr. Stainsby, and the time they were repaid, from the 21st Oct., 1848, to the 5th May, 1853, and showing the loan to have been repaid from two days to three weeks.]

As a further instance of the disingenuousness which characterises the report, we refer to the assertion (p. 19) "that by the accounts it might be supposed that the payment of 200s. a year to the directors, and 41s. 2s. to the auditors, was all that was chargeable for London management; while a further sum of 41s. 2s. is charged in the cost-sheets of the mine under the head of sundries." From this paragraph the committee evidently wish it to be understood that no details were given of this sum of 41s. 2s., and that its payment was intentionally concealed under the absorbing title of "sundries;" whereas, the truth is, the salary of 16s. 13s. 4d. to Mr. Stainsby, as the manager, and which is properly and honestly charged as part of the month's current expenses, is entered separately in each month's cost-sheet, as well as other current expenses.

[Here follows extracts from the cost-sheets from Sept., 1853, to April, 1854, showing each month Mr. P. Stainsby was entered at 16s. 13s. 4d., in addition to charges for office expenses, stationery, &c.; Mr. P. N. Johnson superintending, travelling expenses, &c., 125s. 2s.]

The committee who have made the report, when they gave the conclusions at which they had arrived, and on the course to which they advised the shareholders to pursue, have omitted to point out the insuperable, legal, and financial difficulties, which would prevent us, as their directors, acceding to their views, if we were so disposed; for we cannot think that, with the able assistance of a barrister as their chairman, and of the solicitors employed, they have overlooked them. In conclusion, we beg respectfully to state to the shareholders, as a body, that we shall continue to devote our best energies in the management of the business of the company, but, under existing circumstances, we cannot acquiesce in the requirements of the gentlemen referred to.

Signed, P. STAINSBY (by order).

Mr. BURLS, jun., wished to know who was present when the report was signed by Mr. Stainsby, on behalf of the directors?

Mr. BARNARD replied : Mr. BETTELEY, Dr. SPURGIN, and Mr. STAINSBY; and by the board's minutes, which were then called for and read, it appeared that Mr. HODGSON was to take the chair this day.

Mr. DUNSFORD : Is Mr. HODGSON a director?—MR. STAINSBY : Yes.

Mr. DUNSFORD then read an extract from the minute-book, dated the 28th Dec., 1854, by which it appeared, that in consequence of a letter from Mr. WILKINSON, resigning his seat, which resignation was accepted; Mr. RICHARD HODGSON, being a shareholder, had been elected in his place.

Mr. HADOW observed, that the letter of Mr. WILKINSON was not dated. He wished

to ascertain whether the letter was brought forward the day Mr. HODGSON was elected. Was notice given to the other directors of the intention to elect another director?

Mr. STAINSBY said, there was no positive information given. There was no notice given to the directors that he was aware of, but it was convenient upon that occasion to accept Mr. WILKINSON's resignation, which had been placed in the directors' hands, and urged to be accepted for some months past, Mr. WILKINSON having frequently stated that, when they found a duly qualified person, he should be happy to retire; and the deed required a certain number of directors to be elected.

Mr. DUNSFORD wished to know the date of Mr. WILKINSON's letter. No date being given, Mr. BURLS moved that the letter be sent for, which was seconded by Mr. BETTELEY, and carried unanimously.—One of Mr. STAINSBY's clerks was sent for the original letter, but after some time returned, stating he was unable to find it.

Mr. BURLS said, as the minutes appeared to have been entered in an extraordinary manner as to the appointment of Mr. HODGSON, he wished to know from the chairman who asked him, and when?

The CHAIRMAN said, he was unable to answer that question, because he had not seen the minutes till to-day.

Mr. BURLS said, he only put the question ministerially, as he did not think he could answer it; but it was asked to prove that Mr. HODGSON was elected without any previous announcement, even to the other directors.

Mr. STAINSBY : There was no question of the right to elect a director, and fill up the vacancy.

Mr. DUNSFORD suggested, that while waiting for the letter any motion to be submitted by the directors should be put.

Mr. STAINSBY then moved, and Mr. BETTELEY seconded, "That the reply now read be received, adopted, and entered on the minutes of the company."

The CHAIRMAN said, on putting the motion, that he did not concur in the reply; there was language in it he would not use to any one. He never liked to exchange offensive words, and he had no means of testing the truth of it, although, no doubt, Mr. STAINSBY's extracts were correct; but it was his own fault, as he had hardly done his duty as a director, and beyond that he had nothing to say. Mr. STAINSBY appeared to perform all the duties in the various concerns under his management. He (the chairman) stated that in justice to the other directors.

Mr. HADOW said, that a substantive motion being now before the meeting, he would, as chairman of the committee of investigation, offer a few remarks on the attempted answer of the director to their report. He had listened most attentively to that document; he would not call it a reply, for, though containing many words and phrases, he could discover nothing in it like an answer to the allegations of the committee. He really felt at a loss how to reply to such a statement, for there was nothing in it to justify him in taking up their time by going through its detail; in fact, he should feel it an insult to their common sense to do so. He would, however, touch on one or two points. They were told the directors would justify their conduct when properly called on. Had they not already been so called upon? They had been solicited calmly and dispassionately to answer questions concerning the management of this unfortunate concern, but had refused to do so. The reply said that the committee were wrong in stating that it was only nominally managed by five directors, but substantially by Mr. STAINSBY. He would now refer to the answers of the directors to questions put to them in pages 8 and 9 of the report. To whom is the committee to apply for explanation of the accounts kept in London? Mr. STAINSBY and his clerks. By whom are such accounts kept? Mr. STAINSBY and his clerks. Do the directors collectively examine the accounts monthly, or do they delegate that duty to any particular member of the board? They leave them at other periods to Mr. STAINSBY, who is paid for the duty, the director considering their duties merely nominal, and discharged on faith. In the face of these replies, they had the effrontery to state that the company was under the immediate management of the directors. So much for that assertion in the reply to the report of the committee of investigation. They had been told they had unfairly omitted facts to certain items, and as to Mr. STAINSBY's salary being charged under the head of sundries. He had only to refer them to page 20 of the report, where the items were fully detailed, and should leave them to judge how much value they could set upon such mere contradictions, which were not answers. The directors concluded by stating that there were insuperable legal and financial difficulties in complying with the request of the committee of investigation. He knew the constitution of this company was a very strange one; it was an attempt to introduce into this country the law *en commandite*, under which, in foreign countries, a limited liability was obtained; but he hoped the shareholders would not allow themselves to be deceived on this point, they could not here so get rid of liability. He assured them that in the event of the directors being men of straw, which, however remote such a contingency might be, was possible, a creditor of the company would have a legal remedy against any one of them whom he could prove at any particular period to have held *scrip*. Would it not be much better to alter this state of things, and place the property of shareholders in such a position as to define their liability, and give them a proper voice in the management of their affairs? It appeared, however, that the directors, or some of them, found it better to have the shareholders' money, to make use of it as they pleased, and refuse them any authority in the conduct of the concern. With regard to the ore bills, there was not one word about them; there was no explanation, although this was a very grave subject indeed. The ore bills had not been paid into the company's bankers when they ought. It was no use to tell him that everything was balanced at the end of the year; unforeseen circumstances might happen; if Mr. STAINSBY, for instance, had chance to have fallen a victim to the late disease, in what state would the mine have been in, or from whom would they have been able to obtain the money? Must not considerable difficulty have arisen in obtaining it from any executor? It was most unwarrantable for a person acting as trustee for others to place their property in risk, when it might have been in safety. Mr. HADOW concluded by moving the following amendment:—"That the reply of the directors to the committee of investigation is unsatisfactory, and be laid upon the table."

Mr. CUMBERLAND, in seconding the amendment, said there was not one statement in the report of the committee answered by the directors.

Mr. BURLS said one part of the report charged the committee with subterfuge. If they went into the question of subterfuge, the whole would fall upon the directors, with the exception of Mr. Carr, who now filled the chair. They had always been kept in the dark. But he would not speak without stating facts, if they were to be tried upon subterfuge. At the first meeting, Mr. DUNSFORD asked whether the reserve fund had not been invested in Government securities?—The answer was, that the reserve fund had not been invested, because it had not reached 3000s., when, in fact, it had been invested, and taken out at a loss. At the last meeting they could not act without practising deception. A gentleman asked the simple question, Who signed the cheque? and was answered that they were signed by two directors. If that answer had been given in a court of law, the party might have been indicted for perjury. The cheques were signed by Dr. SPURGIN, in blank, and every one knew that they were not cheques at all until they were filled up. Mr. STAINSBY made them cheques by filling them up, and by signing them whenever he thought proper. It would be observed that the rules were inviolable when the shareholders were concerned, but violated by the directors.

Mr. DUNSFORD said that the composers of the reply indulged in a style which they had not learned from a study of the report. The last speaker had found fault with the term "subterfuge," and shown to which it best applied. He would now dispose of the charge of breach of faith. The *Mining Journal* reporter was present, and would, no doubt tell the shareholders how he got a copy of the report; but the statement that the committee had supplied him with it was untrue. He had repeatedly applied to them, and always been refused. There were many other statements in the reply which could be easily disproved; but he should follow the chairman's example, and abstain from taking up the time of the meeting. He must, however, state on behalf of the committee, that they did not charge the directors individually with a knowledge of the facts exposed in their report. They consider them, however, fairly chargeable with great carelessness in so totally handing over the affairs of the company to one member of the board, who had been proved to be undeserving of such confidence.

[We did not obtain the report of the committee from any member of that body; but, of course, there was no difficulty in our obtaining a copy.]

The CHAIRMAN then put the amendment, which was carried by an overwhelming majority. Mr. STAINSBY, his clerk, and two other gentlemen at the directors' table, voting against it.

Mr. HADOW then moved:—"That this meeting is moreover of opinion that the board of directors, as at present constituted, are not entitled to the confidence of the shareholders, and that the directors to be nominated by this meeting directors in their place."

Mr. CUMBERLAND seconded the resolution, which was carried with two dissentients, Mr. STAINSBY and Mr. BARNARD.

Mr. HADOW observed that the resolution might be said to be carried unanimously, as the only party who voted against it was the one most implicated, and his clerk. It now devolved upon him to ask Mr. STAINSBY and his colleagues whether it was their intention to resign, in accordance with the expressed wishes of so large a body of shareholders?

Mr. BETTELEY said, if they had not sufficient confidence in him, he was ready to resign; but he only remained, being assured that discrepancies of a like kind with those complained of should not take place.

Mr. HADOW asked Mr. STAINSBY whether he would resign, or whether, after the opinion expressed, he would keep his seat?

Mr. STAINSBY said, he had acted throughout with consistency, and it was his intention to hold on to the constitution of the company until the last.

Mr. HADOW said, then Mr. STAINSBY refused to act in accordance to, and in compliance with, the express wishes of the shareholders, and even after Mr. BETTELEY had resigned.

Mr. HADOW : Then I will ask him again categorically. Mr. BETTELEY, are you willing to resign?

Mr. BETTELEY : As I said

BURSTING OF GOLD MINING BUBBLES IN 1854.

BY H. GUNBALL, ESQ.

Although in nearly every instance I have failed, after a vast outlay, in eliciting information from the directors, who still refrain from presenting balance-sheets, I ascribe it entirely to the moral cowardice of the shareholders, who have left me unsupported to fight their battles. After the twelve months' campaign kept up by me, as every one will own, most vigorously, and worthy of a better cause, I am well pleased with the result of my labours, as no poor people will not in future be brought down by every shot from the rifle of designing adventurers. An immense number of swindles have been brought to light already, but the evil still exists to a much greater extent amongst the copper, lead, and tin mines worked in England under the Cost-book System. I shall now, in answer to numerous enquiries, give the latest information in my power about several of the gold companies.

LAKE BATHURST.

The new trial, Woods v. Bell, will come off at the end of this month; and, should the former verdict be confirmed, a pretty time those directors worth powder and shot will have of it. The bill in equity, filed through my instrumentality by Mr. A. Barnard, of Exeter, an original allottee, is progressing favourably, although a startling fact has just taken place. The chairman is said to have gone to Australia, taking with him all the books of the company. No one would credit the amount of annoyance used towards me in this affair to prevent the ends of justice. Base minions were employed to throw every impediment in my way—firstly, a cross-bill was filed; and, now, at the eleventh hour, a petition has been presented for a winding-up. Shares, which were as low as £1, are now 3s. 6d.

NEW SOUTH WALES GOLD.

Has any money yet been returned by Messrs. Armstrong and Westbrook, the solicitors of the company? Perhaps Mr. Honeyman, of Gateshead-on-Tyne, will kindly answer this query.

ALBION GOLD.

Complaints have been rife, threats of legal procedure frequent, but practical movements dormant. At my meeting, held at the George and Vulture, last June, it was officially announced by the directors that a meeting would be held on the 23rd of July last. This has not taken place. So much for Mr. Osmond Lewis's notions of the honour of Sir Robert Price and Mr. Commissioner Murphy. The shares of 1/ each paid are sellers at 5d. each. Can any one, then, be astonished at my patience having its limits, and in my disappointment and indignation finding vent in strong language.

BRITISH AUSTRALIAN GOLD.

There is such a nest of rogues in this world that the proprietary may well be exonerated for wishing to know something of the disposal of their own property. It is a very invidious task to always show up other people's characters in their true light, as it displeases so many. I shall, in future, only continue my strictures so long as it suits my purpose; but I will no longer be made the knight-errant, to tilt at every grievance, real or supposed, whilst the other sufferers keep in the background, and content themselves with mere complaint and accusation, which they have not the notice of public tribunals. The public loves to be duped, and now bewails in vain. Ruin will stalk abroad whenever there is an opportunity; and whether a deception be practised from ignorance or wilfulness, it should be punishable by civil or criminal process. Now, in this very concoction, there should be a public officer appointed, who, upon the sustained allegation of the sufferers, would be prepared to prosecute the directors. British Australian Gold shares are now 2s. 6d., after being £1. 6d. per share.

THE STOCK EXCHANGE, MR. WATSON, AND A MINING EXCHANGE.

In your last Journal, Mr. Watson thinks that the public embarked their capital in Aguia Fria, and not in Devon Great Consols, or other profitable mines, on account of the greater publicity given to the former; whilst I maintain it is owing to the ease with which purchases and sales can be made in it on the Stock Exchange. In the last page of the *Mining Journal*, I find weekly a list of actual business done in British mines. I am now writing in Paris, and the date is the 3rd of January. I should like to know in what place in the City a set of men, calling themselves mining brokers, met on this identical day to transact business, at what hour they assembled and departed, and the maximum number present at any one time, and their names. Perhaps, in addition, some one will inform me how many were sworn brokers. How long is this rotten borough to be allowed to exist? What hope is there for legitimate mining till a change comes over the spirit of the land? Mr. Watson says, "the fluctuations in non-paying dividend mines were immense as regards prices," but I really believe that, for the most part, they emanated from fictitious bargains, to suit the views of certain cliques. He seems also surprised that the gold companies got admitted into the Official List of the Stock Exchange, although the solution is very easy. The shares were most liberally distributed there in the first instance, and then a brokerage of 1s. to 1s. 3d. was allowed to the broker who stood sponsor to the abortion. To show what this is worth, I can state that some influential brokers received, as I have just seen in the balance-sheet of the Australian Freehold, the large sum of 4,552. 8s. for selling 56,000 shares, and afterwards rigging 16,170 shares, to enable the rest to be placed. In the Quartz Rock, large sums were paid for the same purpose, and similar noxious processes have been notoriously carried on in the Ave Maria, Australian Consols, Lake Bathurst, and nearly every other company. There is scarcely a broker who is not compromised in some way or another; but here let me be distinctly understood as warning that they were not aware of the characters of those for whom they were acting—in fact, being blinded by Mammon, they *acted* no questions, as their customers were so profitable, and ready money ones. They should, however, have been more cautious; for being seen hand in hand with a swindler does not add to one's position and respectability. When, however, I exploded these bubbles, the Stock Exchange should have come forward to a man, and subscribed liberally towards their extinction, seeing that, by their endorsement, they had been the means, most innocently, of causing much misery in nearly every principal town in the United Kingdom. Their sympathies, however, it appears were rather given to the murderers than to their victims; for, after all, the former brought the actual grist to the mill; but then they should recollect it was by means of the gullibility of the latter that this desirable result to them came to pass. However, in spite of all these combinations, I shall, out of pique, continue my strictures without intermission *pro bono publico*—not for the love I bear the mass of shareholders, but in order to bring about a better state of things.

Mr. Watson has made an unfortunate, or perhaps an invidious, comparison between Aguia Fria and Devon Great Consols, as regards prices; if he had substituted Port Phillip or Colonial Gold, it would have been more to the purpose, as, although Aguia Fria is at present under a cloud, yet, in time, some favourable results are not altogether an impossibility.

AUSTRALIAN CORDILLERA.

The chairman of this concern, Mr. Woldridge, underwent his first examination in the Bankruptcy Court, last week, before Mr. Commissioner Boniface. His schedule showed a loss of £200,000. on the shares of this concoction, and that creditors held £5,000,000. of Westminster Improvement Bonds as a security. This has caused a perfect panic in them, as it is presumed they must be sold to strike a balance. We have lately seen this gentleman, in conjunction with Messrs. Duppa, Martin, and Bennett (directors also of the Australian Mutual), opposing Messrs. Capel, Jessel, &c., with the latter's own money, subscribed by them in a laudable endeavour to petition for a winding-up. Is there no retribution in store?

Mining Correspondence.

BRITISH MINES.

ALFRED CONSOLS.—The shaftmen will be ready for sinking Field's engine-shaft under the 130 fm. level by the beginning of next week; the lode in this level, east of the shaft, is worth for copper ore 50/- per fm., having the appearance of improving very shortly; the lode in No. 1 winze sinking under the 120, east of this shaft, is worth for copper ore 180/- per fm.; this winze is sunk 5 fms., 3 feet below the level; the south lode in the 120, east of this shaft, is worth for copper ore 7/- per fm. No change to notice in any of the tedium operations since my last.—M. WHITE.

ALTARNUN CONSOLS.—Since last report we have discovered a branch, south of the lode, in the west end, about 4 in. wide, containing mundic, spots of copper, and tin; it is inclining towards the lode, and in driving 3 ft. further will meet the same, which is increasing in size as we get nearer the branch, and also producing mundic, spots of copper, and tin. The lode in the east end is still in an unstratified state. The shaftmen will be in a position for sinking in course of another week, and next week shall go to market with about 2 tons of tin of good quality.—R. REYNOLDS.

BALLYVIRGIN.—The lode in the bottom of the winze is larger than it was last week, but will not yield much more ore per fm.; for although larger, it is not so clear from veins of limestone running through it. The south end of the winze continues to be the richest; the lode in the bottom of the winze at present is worth 35/- per fm.—R. W. SMITH : Jan. 2.

BEDFORD CONSOLS.—In the adit level which is driving at 4/- 10s., stent 1 fm., the lode, as far as cut into, is 4 ft. wide, composed of peach, a little fluor-spar, and quartz, thickly spotted with black and yellow ore. The whim-shaft is down about 5 fms., sinking at 3/-, 2 fms. stent, lode 4 ft. wide, consisting of good gossan, quartz, and peach, with prian, and black ore interspersed.—H. HORNWILL : Jan. 4.

BEDFORD UNITED.—The lode in the 130 fm. level, east of the shaft, is 3 ft. wide, producing good stones of ore. In the 115 east the lode is 4 foot wide, worth 8 tons of good ore per fm. In this level west the lode is looking more promising than it has for some time past, and is now producing good stones of ore. Paul's stoners, in the back of this level, are worth 5 tons of ore per fm. Jeffery's stoners are worth 7 tons per fm. No lode has been taken down in the 103. Jackson's stoners, in this level, are worth 6 tons per fm. The lode in the 90 is 2 ft. wide—unproductive.—J. PHILLIPS : Jan. 3.

BIRCH ALLER.—The character of the ground in the 50 fm. level, north of Pye's shaft, is very similar to what I stated last week; but we have intersected a branch coming in from the east, with good stones of lead disseminated in it, and which I think to be the same that we cut further south in making the plat, which ought to lead when it unites with the western wall. This end south has shown a good change within the last week, there being a very kindly branch upon the footwall, composed principally of brown jasper, embedded in a soft prian, with mundic and spots of lead intermixed. The 40 fm. level, south of Pye's shaft, is without any very material change, the lode still continuing to produce good stones of lead, in a soft prian, and the stratum of ground around the lode is of a highly mineralised character, such as lead ought to be found in. As I told you in my last, the barytes in the winze sinking below this level appears to be wearing out, which is the case, and a patch of soft elvan has taken its place, which has dislodged the lode; but as the lode generally makes better around the elvan in the neighbouring mine, I am calculating upon meeting with similar results in the 50 fm. level under this point. The engine, with all the other machinery on the mine, are working very satisfactorily.—G. R. ODEERS.

BOILING WELL.—Since my last report, we have finished cutting the plat in the 50 fm. level. The shaftmen are now cutting cisterns plat in this level, which will occupy about a fortnight. We have cut in the lode in the 50 fm. level 12 ft., but have not cut the north wall as yet; I think we are not far from the wall of the lode, as it is making the same appearance as it did in the 40 above, producing spar and peach, spattered with ore and lead; it appears to be more settled and much harder. The east end in the 40 is still producing about 1 ton of ore per fm. The nearest tribute pitch to this end in the back is working at 6s. in 12. The eastern end in the 30, on this lode, is leaving tribute ground at present—say, from 10s. to 12s. in 12; these ends are now nearly one over the other going east. We are driving north in the 40 by four men, to cut some north branches, and also driving east on the lode by three men, to drain the east whim-shaft. We have sampled 119 tons of good ore, and if the tribute pitches hold the same as they are at present, I hope to have a better sampling next.—G. REYNOLDS : Dec. 30.

BOLENOWE.—There is no particular alteration to notice in either of the levels since last reported.—W. ROBERTS : Dec. 30.

BRONZEFLOYD.—The spots of ore in the forepart of the level are getting stronger, and the ground more favourable for driving.—J. JONES : Jan. 2.

The lode in the north cross-cut is improving very much, and most of the stuff that comes out is worth washing; it has a most promising appearance.—JONATHAN JONES : Jan. 4.

A decided and important improvement is reported at this mine.—JAN. 3.

BRYNTAIL.—The lode in the 10 fm. level, east of the cross-cut, on the new lode, is 3 ft. wide, which contains an excellent leader of ore, varying in width from 4 to 15 in., and at present it has every appearance of improving as we drive east. There has been but little done in the 10, west of the cross-cut, during the past week, the men having been employed stopping down a piece of ground under the shaft; however, the lode is exceedingly promising, and produces a little ore. The stopes west of the shaft have been commenced in a good course of ore; if it continues we shall be able to raise it for 30s. per ton, which would scarcely be equivalent to 2s. 6d. in 12. tribute.—J. ROACH : Jan. 3.

BUTTERDON.—The engine-shaft is sunk 2 fms. 4 ft. below the 30 fathom level-ground favourable for driving. The lode in the 30, north end, the lode is 10 inches wide, composed of can and a little lead.—W. JENKIN : Jan. 2.

CALSTOCK UNITED.—The sinking the sump-shaft is progressing favourably; the walls of the lode are 7 ft. apart and regular; the pise is composed of flockan, pebbles, mundic, and traces of copper ore. We expect to sink to the 60 fm. level in 10 weeks from this date.—J. KERNICK ; W. COOKE : Dec. 30.

CAMBORNE CONSOLS.—In the 31 fm. level cross-cut north the ground continues favourable for driving. The winze sinking under the adit, on the counter lode, is communicated with the 10 fm. level. This will enable us to set another tribute pitch on setting day next.—W. ROBERTS : Dec. 30.

CAROLINE WHEAL PROSPER TIN.—Since my last, I have to report we have taken down the lode in the adit level, which is more than 2 feet wide, producing splendid stones of tin. The stopes are looking, and are being pushed on, just as last reported.—W. WILLIAMS : Jan. 4.

CARREG-HOVA.—The sett comprises the whole of the Llanymynech Hill, which is about 200 acres in extent, and the ores of copper and lead already got have been raised from a flat, averaging about 3 feet in thickness, and lying between, and running parallel with, the stratum of limestone that encloses it. The ores are found occasionally in compact masses, and at other times thickly mixed with the soft clay, gossan, and sand, that compose the flat. The inclination of this mineral bed varies considerably, sometimes being nearly horizontal, and at others having a great dip; in the latter case assuming a saddle-like shape. Your operations hitherto have been on a very limited scale, the whole area worked not exceeding a quarter of an acre, out of which about 200 tons of rich carbonaceous and sulphureous copper have been raised, of an average produce of 10 per cent., and about 20 or 30 tons of lead ore, of standard quality. You have now on the dressing-floor, nearly ready for market, 15 tons of green, blue, and yellow copper ore, which will produce from 20 to 25 per cent., and the whole parcel, in my opinion, is worth from £2. 10s. to £3. 10s. per ton. This is the produce of last month, and was raised by eight men (all you have at work on the mine) in driving a level and making a sump-pit to open out and develop the ground. In the bottom level, where four men are now at work, they have a good bunch of copper ore, and by continuing this level you will open this part of your ground, and as rich lumps of lead ore have been found in driving, amounting to 1 or 2 tons, there is, in my opinion, every prospect of your meeting with a body of that mineral in this neighbourhood. In the upper, or north, level, four other men are employed in sinking and driving out on the flat, and here, too, good ore was being raised at the time of my visit. From what I have said, you will perceive that your operations have been confined to a very small space, and conducted with few men. The situation of your mine possesses every advantage for opening and developing it on a large scale, and at a trifling comparative cost. The walls are hard, and require little or no timber, and the workings are quite dry, the water, if any, passing in the cracks, or between the beds of limestone. No trial has been made by you in your extensive sett, except in the little particle you now work, and the greatest depth you have sunk in search of other mineral beds is under 40 yards. Many parts of the hill are more or less impregnated with copper, and several tons of ore in lumps have been picked out of the fissure in the limestone in different places on the hill; trials might be made at these places at a light expense, and directed with the best chance of success. From the character of your vein, lying nearly horizontal, and the bony nature of the ground, it is impossible to speak with certainty as to the ultimate success of the mine, or the quantity of ore that may be got from the present workings, from the present appearance of your flat, the quantity of rich ore already got from such a small hole, and the metalliferous appearance presented in other parts of the hill, fully warrant the opinion that your adventure will prove most successful. I have advised your agent at the mine to put more men to work in raising ore, and driving out from your present workings, and in working trials in other parts of your sett.—W. EDDY : Jan. 2.

CARVANNALL.—In the engine-shaft sinking under the 106 fm. level the ground is harder than usual, and the lode is small. The lode in the 106 east is 1 1/2 ft. wide, chiefly mundic. In the same level west the lode is 2 1/2 ft. wide, composed of mundic, iron, and prian, with a portion of black ore. The lode in the 96 east is disordered by a cross-course. In the western end the lode continues 3 ft. wide, kindly, with spots of ore. The tribute pitches are looking tolerably well.—W. HORNKES.

CLIJAH AND WENTWORTH.—Julia lode: Our new pumping-engine was put to work to-day, and answers admirably well. The placing the large pitwork in the shaft, and the general preparation for the passing our pumping work from the old to the new engine-shaft, have somewhat hindered, for some time past, our mining operations in the lower levels, but we shall have a good fair start again. We sampled this week, 128 tons of copper ore, of about the same quality as last sold. The 40, driving west, is extended 14 fms., lode producing good stones of ore; the 40, driving east, will yield 1 ton of ore per fathom, and improving in appearance. The winze sinking below the 30 fm. level is sunk about 3 fms., lode producing 2 1/2 tons of ore per fathom. In the 30 fm. level, driving east of Walter's engine-shaft, no lode has been taken down since last report. The 20 fm. level, driving east of the said shaft, will yield 1 1/2 ton of ore per fathom, with branches of ore falling into the lode. The 10 fm. level, driving east of the said shaft, is much improved since last report, and yielding from 1 1/2 to 2 tons of ore per fathom. The cross-cut driving south to intersect Whitford's lode, in the 30 fm. level, is now extended 14 fms., but no lode has yet been met with; we are in daily expectation of doing so. Whitford's lode has evidently gone down more towards the perpendicular than we estimated from its dip, as seen in the adit level, which is by no means an unsatisfactory symptom.—JAMES CUDLIP ; CHARLES GLASSER : Dec. 30.

CLOWENCE WOOD.—The adit level driving west of Slater's shaft, on Slater's lode, is 9 in. wide, producing stones of ore.—E. CHEGWYN : Jan. 1.

CROSS-GILL HEAD CONSOLS.—We are getting on well with the widening of the 17 fm. level south for the wagon-way. The level being carried narrow by the former parties in such a large vein, resulted in the leaving of a good deal of ore on each side of the level, which in the widening we have worked and blasted down, discovering grey ground where such was not expected to exist. It will take us about a month or six weeks longer to complete the tram-road, and get the ore already broken to surface operations than at present. We have sunk in the bottom of the level, and the vein there much improves, producing stones of solid lead ore many pounds weight, as well as holding the continuation of the copper, grey ore, and silver-lead. We have not done much in the back of the level of late, as by doing so we should be hindering the men working in the level, by throwing the bowse down in their way; the little we have done in the back shows improvement in the vein, the rib of grey ore widening, and looking more rich than before. We shall sample several tons of ore from the adit level in the first part of February next, and I have but little doubt as to its value.—T. DICKINSON : Jan. 2.

CUBERT UNITED.—At Trebbskin, there has been no lode taken down in the engine-shaft during the past week. The lode in the 55, west end, is 1 ft. wide, producing about 3 cwt. of lead per fm.; the rise in back of this level is worth 5 cwt. of lead per fm. The lode in the winze sinking below the 45 east is worth, say, 3 cwt. of lead per fm. The stopes in back of the 45 west are worth 4 cwt. of lead per fm. At Trebbskin, the lode in the engine-shaft is 14 in. wide, worth about 8 cwt. of lead per fm. The lode in the 55, north end, is 8 in. wide, producing a little saving work, but not to value. The lode in the sump-winze is 18 inches wide, worth 15 cwt. for the 45. The stopes in back of the 55, north of sump-winze, are worth 4 cwt. of lead per fm. The south stope is worth about 3 cwt. of lead per fm. The lode in the 46, north end, is 7 in. wide, composed of quartz, prian, flockan, and small spots of lead. The lode in the 46, south end, is 10 inches wide, composed of quartz, prian, and flockan, with spots of lead.—A. DOWS : Dec. 30. —P.S. We have, to date, sampled a parcel of lead ore, computed 50 tons.

CW M. DARREN.—We have not got the plunger-lift to work yet, which is owing to our having had a deal of ground to cut in and about the back of the 30, to make room for the pole case, the rod in the perpendicular being so near the end of the shaft. I hope, however, in my next to be able to report that it is working well. In the stopes in the 30, east of Morgan's winze, the part of the lode being carried is about 5 ft. wide, producing some good work for copper and lead ore: there is no sign of the south wall yet. In the stopes in the 10 fm. level west the lode is 5 ft. wide, the same as last reported.—A. WATERS : Jan. 1.

DEVON BULLER.—There has not been much done underground since last week, in consequence of not having sufficient water to work the engine; therefore, we have been though best to commence once raising stone for the engine-house, and prepare for the erection of the steam-engine with all speed.—W. NEILL : Jan. 4.

DRAKE WALLS.—The branches in the 80 fm. level, west of Matthew's shaft, have been cut off by a large cross-course, which have the branches about 3 fms. north; as far as the branches are seen, west of the cross-course, they are presenting a very kindly appearance. The stopes in the back of this level are producing saving work for tin; and we intend setting another stope in the back of this level at out next setting. The branches in the 70 fm. level, east of the said shaft, are small and poor, and the ground hard for driving. The branches in the 60 fm. level, east of the said shaft, are producing good saving work. The branches in the 50 fm. level, east of the said shaft, are producing good work. The footway-shaft is now about 6 fms. below the 70 fm. level, in which the branches are not so large, but are much improved for tin since our last report. The branches in the rise in the back of the 6

copper. I have forwarded by this post a stone of the copper now coming in, which will verify this report. We are getting on very satisfactorily at Carkeet's; the lode in the bottom of this shaft is from 7 to 8 feet wide, carrying two regular and well-defined walls, composed of very rich gossan; but the gossan is gradually leaving, and soft spar, fluor-spar, and feldspar, spotted with copper, predominate. I look forward, in a very few fathoms more sinking, for a much greater change. It is, doubtless, a splendid-looking lode, and, judging from present appearance, after we completely bottom the gossan, we may expect a good course of copper ore.—J. SPARRE.

GREAT WHEAL ALFRED.—The lode in Painter's engine-shaft, sinking below the 160 fm. level, continues much as last reported. In the 160 fm. level, west of Painter's, the lode is 5 feet wide, and will yield 3½ tons per fm. In the 145, west of Copper-house winze, the lode at present seen is 5 ft. wide, and will produce 4 tons per fm. The stopes in the back of the 145 will turn out 60t. worth of copper ore per fathom. The lode in the 137, east of Painter's shaft, is 2 ft. wide, and will yield 1 ton per fm. The stopes behind the end are worth 30t. per fm., and the stope west of the rise is worth 25t. per fm. Other tutwork operations are without much improvement. The tributaries are breaking a fair quantity of copper ore.—T. RICHARDS: Jan. 3.

GREAT WHEAL VOR.—Crease's summen have completed the plunger-levies in the 35, the engine put to work, and began to draw the water. The masons are proceeding rapidly with Trellaway's engine-house. All surface operations are in steady progress, and the tributaries are working spiritedly.—**GROUSE LODE.**—The 10, east is driven 3 feet, the lode worth from 6t. to 10t. per fm. The men are progressing with the new shaft.—**METAL LODGE.**—No 1, engine-shaft lode, worth from 14t. to 20t. per fm.—**NO. 26.**—In the 60, west of engine-shaft, the lode is 5 ft. wide, worth over 70t. per fm., and daily improving.—**NO. 8.**—In the 50, west of engine-shaft, the lode is 15 inches wide, producing rich work for tin.—**NO. 15.**—The lode in the 50 in back of the 50 is worth 25t. per fm.—**NO. 18.**—In the stope in bottom of the 40, west of No. 7 stope, the lode is worth 15t. per fm.—**NO. 25.**—In the new winze in the 50 east the lode is good for tin, worth 40t. per fathom. In the new winze in the 40 west the lode presents every appearance of shortly meeting with a good course of tin. The Christmas holidays having somewhat affected the work done in the week, and the occasional stoppage of the great engine, has diminished the supply of water for dressing the next batch of ore, already at surface.

HAWMOOR.—We have been driving by the side of the lode in the 30 fm. level east; this week the ground is favourable, and the south wall of the lode very regular; the stopes in back of this level are worth 3 tons of ore per fm. In the end of the 29 east the lode is split by a horse of killas; consequently, at present it is unproductive; the rise in the back of this level, and near the shaft, is looking well, producing 1 ton of ore per fm. The stope in bottom of the 10 is improving as we sink, and we have every reason to expect a productive lode. We hope to commence sinking the shaft below the 30 next week. We sampled, computed, 36 tons of ore of fair quality, yesterday.—J. KERNICK; J. RICHARDS: Dec. 30.

HENNOCK.—The lode in the winze sinking under the adit level, at Park's engine-shaft, continues without the least alteration, it being more than the width of the winze, composed of gossan, soft quartz, and mundic—a splendid looking lode; we are sinking by nine men, occupying all working time, the water is very quick. We are obliged to suspend the driving of the south end in consequence of the whim having so much water to draw, and cannot keep the stuff; this end never looked better than at present, having a leader of can about 6 in. wide; I have not seen any thing like this in any part of the lode that has been laid open in this mine. The lode in the 13 fm. level is not looking quite so well, the ground to the east of the lode being a little harder than it has been. The lode in the 30 fm. level is about 3 feet wide, composed of soft quartz, prian, jack, with a little mundic and sprigs of lead, a very promising looking end; the air is rather dead at intervals in this place, but the ground is very easy for driving. The engine, with all other plant on the mine, is working well. Since I came up from underground the men have cut a "vugh" in the winze, so that they can put down a shovel full the whole length. The lift has as much as it can do to keep the water.—H. RICKARD: Jan. 1.

HILL BRIDGE CONSOLS.—The ground in Wheal Jewel shaft is without alteration since my last, but the lode is gradually improving in copper, and is still 7 feet wide, with two well-defined walls. I never saw a more promising lode at such a shallow depth.—J. SPARRE.

HINGSTON DOWN CONSOLS.—Owing to the Christmas holidays, but little has been done underground since the last report; the lode in the shaft, however, continues of the same character and value, as it also does in Doidge's winze. In the 75 east no 1m. movement has yet taken place: there is more water issuing from the end, which leads to the hope that ere long the lode will resume its former character; the ground, however, continues hard, preventing our getting through this piece of ground so fast as could be wished; the 75 east is without alteration. The lode in the 65 west is large and ore throughout, and worth from 3 to 4 tons per fm. At Hitchens' shaft, the south lode has become better defined, and is producing more ore, there being a leader on the north wall of black and yellow ore of about 9 inches wide. In the 65 west the lode continues to yield good stones of ore. There is nothing new to report in the tutwork and tribute departments. December ores were sampled on Friday last, computed 303 tons; and November ores were weighed, amounting to 308 tons 7 cwt. 2 qrs.—W. RICHARDS: Jan. 4.

HOLMBUSH.—On the Holmbush lode, the 145 is still producing 1½ ton of ore per fm. The cross-cut, driving south in the same level to the flap-jack lode, is progressing favourably, but the lode is not yet intersected. In the 132, west of the lead lode, the 120 west continues to yield 1½ ton of ore per fm. The lode in the western winze, below the 110, is producing 1½ ton of ore per fm. In the eastern winze, sinking below this level, the lode is producing as last reported—4 tons per fm. The clearing the adit and other levels in the eastern part of the set is going on with all possible dispatch, and will, I expect, be entirely laid open in a week or two. The tribute department is generally looking well, and the pitches yielding fair returns. We weighed on Friday 303 tons 19 cwt. 2 qrs. of lead ore, which, with carriage, produced 2313t.

HOPE VALLEY.—The lode in the 47 fm. level, driving south, is 2 ft. wide, interspersed with lead ore, the matrix of which is porphyry. The cross-cut driving east in the 47 is in moderate ground for driving, and has passed through a branch of spar about 3 in. wide. The lode in the 47 fm. level, driving north, is unproductive; consequently, we have taken the men from this end, and put them to sink the winze through this level; the lode is producing as last reported—4 tons per fm. The clearing the adit and other levels in the eastern part of the set is going on with all possible dispatch, and will, I expect, be entirely laid open in a week or two. The tribute department is generally looking well, and the pitches yielding fair returns. We weighed on Friday 303 tons 19 cwt. 2 qrs. of lead ore, which, with carriage, produced 2313t.

KELLY BRAY.—Kelly Bray shaft is being sunk 10½ fms. below the 80 fm. level, there being 2½ ft. more to sink to complete the lift, which we hope to accomplish by the end of the present week, then we intend commencing a 90 fm. level east with all possible speed. The lode in the shaft is small and unproductive at present; but we calculate, by driving 4 or 5 fms. east in the 90, to meet with a productive lode, such as we drove through in the 80 fm. level, and intersected 5 fms. east of shaft. The lode in the 80 fathoms level east is much disordered and split into branches; these branches dip north, which is contrary to the regular dip of the lode, which indicates to us part of the lode being still further north, therefore we have commenced cross-cutting north from present end east to prove it. We have four tribute pitches in the back of the 80 fm. level, wrought on by 16 men, at an average tribute of 8s. 4d. in 17. The lode in the 70 fm. level is 2 ft. wide, composed of fluor-spar, mundic, capel, and quartz, with occasional spots of copper ore. We have three tribute pitches in the back of 70 fm. level, wrought on by six men, at 13s. 4d. in 17. We calculate we have about 50 tons of copper ore broken towards the next sampling, which will be on the 20th of the present month.—THOMAS WOOLCOCK: Jan. 1.

KESWICK.—At Brandley, the 20 north is worth 2 tons of lead ore to the fathom; Lancaster's rise in this level is worth 10 cwt., Shepherd's stope 25 cwt., Kelley's rise 12 cwt., Glyn's stope 10 cwt., Salt stope 12 cwt., and Graham's stope 12 cwt., lead of ore per fm. The rise in the 30 south will produce 5 cwt. of ore per fm. We have two stope in back of this level, both of which will produce 10 cwt. of lead ore per fm. At Thornthwaite Mine we have cut a little ore in the cross-cut east of the vein.—R. B. SHEPHERD: Jan. 3.

LAMHEROE WHEAL MARIA.—The 50 cross-cut, north of Jessie's shaft, continues to progress at about 3 ft. per week, and the ground is without any material alteration. We are busily engaged getting pitwork, in order to put down a 10 inch lift, to prepare for an increase of water in the bottom level. The ground on the north side of the lode in the 40 fm. level, east of Jessie's shaft, is more favourable for driving than it has been, but we have not taken down any of the lode, either in this or the western end, for the past week.—J. G. PEARCE: Jan. 2.

LEEDS TOWN CONSOLS.—The ground in the engine-shaft is much the same as last week. The 30 fm. level, west of engine-shaft, lode 2 ft. wide, and poor. In the same level east the lode is 2½ feet wide, and is gradually improving—it is now worth 8t. per fm. Should the ground continue as at present, we expect the counter-part of the lode in the 20 in two or three weeks more. In the 10, driving south by the flookan, the ground continues hard. In the 20 east, on Gooch's lode, there is no change to report; in the same level west I note a little improvement on the lode. At Eley's shaft we are raising large rocks of tin; the lode still continues its size, while the quality is improving; we shall commence sinking here to-morrow, and as soon as we come to water shall connect the flat rods with the engine.—P. PASCOR: Jan. 2.

LEWIS.—The north lode in the 100 fm. level, east of the tin shaft, is at present split into two branches, producing low priced stamping work. The south lode in this level, east of the salt shaft, is 15 in. wide, worth 15t. per fathom. We have resumed driving this level west, having an improvement in the stopes over the present end. The lode has not been intersected in the 70 fm. level cross-cut; but expect to accomplish it shortly. The summen are engaged sending down the plunger-lift, which will be fixed in the 100 fm. level, and completed with new rods, stays, catches, fence-off bob, &c., to the 70 fm. level before we stop the present engine.—M. REED.

LOVEDEN UNITED.—The lode in the 10 fm. level, east of engine-shaft, is 3 feet wide, spotted with lead ore, but not sufficient to set a value on. The slope in back of this level, east of the salt shaft, has become much disordered, and for the present suspended; the slope west of winze is 3 feet wide, the greater part of which is saving work for dressing. The lode at Pen-y-bank shaft is 5 ft. wide, producing good stones of ore. The lode in the 10 west is much improved within the last few days—now 2½ ft. wide, yielding from 8 to 10 cwt. of ore per fathom.—S. TREVETHAN: Jan. 3.

LOUGHAGANNO.—The lode in the end of the 10 fm. level is 4 ft. wide, producing good stones of lead, ground favourable for driving. The lode in the stope, south of shaft, is 3 ft. wide, rather poor at present; ground just the same as when last reported. The lode in the stope, north of shaft, is 5 ft. wide, worth about 15t. per fm. We have cut through the lode in this stope, and find the lode continues good as before, running in a north and south direction, which is of great importance to the mine, as we can open on the course of the lode at any distance, which will enable us to raise a much larger quantity of lead than before, if the lode continues productive. Our dressing operations look well.—J. WILLIAMS: Jan. 3.

LYDFORD CONSOLS.—The lode in Richards's engine-shaft is 6 ft. wide, composed of fluor-spar, mundic, quartz, prian, and a small quantity of lead ore—very promising. I have sent you, by this post, a small box of stuff from the engine-shaft, that you may test the lode of its promising character.—J. RICHARDS: Jan. 3.

MOLAND.—The lode in the winze sinking below the 62 fm. level is 3 feet wide, worth about 10t. per fm.; very little has, however, been done here in sinking in the present week, in consequence of the men having been engaged in repairing the level, cutting ground and taking up water, which they have finished, and are now in repairing operations again—set to six men, 1 fm. at 10t. 10s. The stopes in the back of the 50 are worth 10t. per fm.—set to two men, 1 fm., at 5t. The stopes in the

back of the 42 east are worth 13t. per fm.—set 1 fm., at 5t. 5s. The pitch in the back of this level has improved, and I think the men are getting fair wages. In the winze sinking below the adit, is the eastern hill, the lode is split up in branches, though we shall be able to tell something of its character—set to two men, 3 ft., at 4t. 10s. per fm.—T. BENNETT: Jan. 3.

NANT-AR-NELLE.—The lode in the north slope is 15 in. wide, composed of kilm, prian, and rich stones of lead; the lode in the south slope is about 2 feet wide, composed of gossan and illas, with rich strings of lead running through it. In order to develop this mine, I strongly recommend sinking an engine-shaft under the old workings; by sinking 10 fms. we shall lay open hundreds of fms. of dry ground; this can be done without the aid of machinery, at a cost of about 12t. per fm.; at this point we shall doubtless make a valuable discovery. There is another feature we should not lose sight of—that is, driving north to intersect the east and west lode. We are cleaned about 3 tons of ore ready for market, and some tons were to clean, but the weather is so unfavourable it is impossible to do anything to the surface operations. I have got the timber home for the shed, and the sawyers are at work.—F. COUCH: Jan. 2.

NANTEOES AND PENSRIW.—In the Eystunteam deep adit the lode is 4 ft. wide, with a slight mixture of ore. In the 40, east of Pensriw, the lode will yield full ½ ton of ore per fm. The stopes over the same will yield 12 or 14 cwt. of ore per fm. In the 35 east the lode will yield ½ ton of ore per fm. In the rise and stopes over the same the lode on an average will yield about ½ ton of ore per fm. We are getting on with the dressing as fast as the weather will admit.—M. BARRETT: Jan. 1.

NANTLE VALE SLATE COMPANY.—I beg to send you the pay list and slate returns for December. We are pushing on with our preparations at both the quarries, and have excellent rock in view; the completion of these may occupy us for the greater portion of the month; but if, as I expect, the remaining rubbish in each quarry can be removed by the middle of the month, we shall then be able to recommence slate-making. The progress of the adit is interrupted at present, the men being otherwise engaged in making a bridge across it, on the Gwernor road; I believe this will be finished by the end of the week, when they will resume their former work.—J. HORNE: Jan. 2.

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NORTH BASSET.—In the rise in the back of the 52 fm. level, the lode is worth 100t. per fm. In the stope in the back of the 52 fm. level the lode is worth 70t. per fm. fathom. In the winze sinking below the 52 fm. level the lode is worth 70t. per fm. All other parts of the mine are without alteration.—T. GLANVILLE: Dec. 30.

NORTH BULLER.—During the past week we have had to work our engine from 10 to 12 hours each day. At our monthly setting, yesterday, we set the 50 fm. level to drive by four men, at 6t. per fm.; and the 40, at 5t. 10s., by four men. The lode in the 50 has been somewhat disordered, but is now getting better again. The lode in the 40 is 18 in. wide, interpersed with rich copper ore, and exhibiting a very promising appearance.—R. H. PIKE: Dec. 30.

NORTH DOWNS.—The ground in the 100 fathom level, east of west shaft, is very hard and unproductive, and as the lode in the bottom of the 90 has become small and poor in the elvan course, I consider that this part of your property is thoroughly proved, and I regret not being able to hold out to you any hope of realising good returns by a further development of the lode, either in or below the porphyry. I beg, therefore, most respectfully, to recommend you to abandon this part of the mine as soon as possible, and stop the costs.—At East North Downs, I am glad to say that although the water is much above both dams, there is no leakage in either of them, nor in the least appearance of water coming through the ground in any part of the workings. The lode in the 10 rise is 2 feet wide, and will produce nearly 2 tons of ore to a fm.; we have, however, suspended operations here against Bennett's shaft, which is in course of working by six men, at 6t. 10s. per fm., and shall be brought down and communicated with the level to ventilate the workings, and to facilitate the removal of the ore and slate. The water in the 20 does not rise much above the bottom of the level, notwithstanding a large stream runs down the shaft, as also from the 10 end.—J. PRINCE: Dec. 30.

NORTH SORTRIDGE.—We have finished open cutting and commenced close driving, to intersect the lode, which we expect to accomplish in driving from 6 to 7 fms., but cannot say to a fm., as the lode has not been developed sufficiently at this point to take it in full bearing; the ground we are driving in is close killas—price, 50s. per fathom.—J. COCK: Jan. 3.

NORTH WHEAL TRELLAWNY.—We have cut through the lode in the 25 fathom level west of Coryton's, and find it to be 2½ ft. wide, but is partially disordered by a slide, producing good stones of lead and gossan, but from the improved character of the stratum, we expect an improvement by extending it daily, being much softer than it was in the 13. The cross-cut driving east to the Quarry lode, in the 13, is at present suspended, and we shall commence driving north and south on its course immediately. The lode in the 13, north of shaft, is 2 feet wide, producing good stones of lead; in the same level south it is 2½ feet wide, producing 3 cwt. of lead per fm.; in the winze sinking under this level it is 2½ ft. wide, producing 5 cwt. of lead per fm. The lode in the stope has not been taken down since my last report.—H. HODGE: Jan. 4.

OKEL TOR.—The driving the 35 fm. level to intersect the silver-lead lode has been commenced in very favourable ground; it is intended to intersect a caunter branch which is running towards the lode in a south-east direction; by following the course of this branch, it will materially assist and expedite the cutting of the lode. In the 20 fm. level south we are cutting through the copper lode lately cut; in the present end there is a solid lode of mundic by the side of the cross-course. So far as can be seen of the lode, it promises to be a very productive one for copper.—W. B. COLLOM.

PEDNANDREA UNITED.—In the past week, we have cleared and drained 9 feet in the engine-shaft; we are now 3 fms. 1 ft. 6 in. below the 47 fm. level, in firm ground, and getting on well—we calculate to be near the choke. We are down on the timber of the collar of the engine-shaft, which went in from the surface in the first run; the shaft filled with timber, mud, sand, and stuff, cast in from surface. We are engaged cutting bearing holes in the 47 fm. level; here we intend pushing in a set of bearers, which, we calculate, will assist the joints, the lift now hung by the top pump being from 12 to 14 tons weight. We have been through most of the levels during the past week. In the 40 fm. level, east of Trevena's shaft, the lode is 1½ ft. to 2 ft. wide, composed of mundic, peach, quartz, and a little tin. In the 47, east of ditto, the lode is 3 feet wide; it has a favourable appearance, and will produce a large quantity of tin-stuff. By opening a little further on this lode, we shall be able to report on its value. We have been a great many fathoms west of the shaft on this level, but have not seen the end; most of the ground in the back is stopped away. We have been west of the engine-shaft, on Skinner's lode, about 30 fms.; here most of the ground is standing from the 47 up to the 40 in the back; the lode in the end is 1 ft. wide, producing mundic, jack, and spots of copper ore, and a little tin. We are preparing with all speed to clear the 47 cross-cut from Skinner's lode to the south lode; when this work is completed, I hope to set more tribute on each of the lodes. We have 12 pitches working on Skinner's lode, by 27 men and 3 boys. We hope our next sampling will be much above the last. Our machinery is in a favourable state of working, keeping the water at 4½ strokes per minute.—J. DELBREDE: Dec. 30.

PENPOOL.—The 70 fm. level is looking very well: the lode is full 3 ft. wide, and good work for lead. The lode in the 70 east has been heaved by a flookan, and has not as yet settled. The lode in the 60 west is very large, and producing good stones of lead. The lode in the rise above this level is 5½ ft. wide—a good course of ore. The stopes are looking very well. We shall sample to-day about 60 tons of fair quality ore. All the other levels, &c., are much the same as last reported

TYN-Y-WORGWOOD SLATE QUARRY (North Wales).—The progress of these quarries is most satisfactory to the proprietors, as the slate making department is showing a considerable profit. 24,700 slates have been made during the past month; and the agent reports that in removing the stock, so as to enable him to commence the shaft that is to communicate with the lower tunnel, he shall make many hundred tons of slate. The rock now taking down from what is called the loose end is exceeding good slate, the colour most excellent, the texture of a fine even grain, and when manufactured into slates, are of the most marketable character. It is very satisfactory for the proprietors to understand that every month's working will now extend the facilities for slate making, as almost every block that is now removed enlarges the opening in length or depth, thus giving increased facilities for the setting additional bargains to the slate makers. We are producing slates but from two of our seams at present; however, in a short time, we shall be able to work upon the third seam, which will still increase our returns, and every block of slate we produce is an additional proof of the superior character of our slate, and that it is second to none in the district.

VALE OF TOWY.—In the 30 fm. level, driving north, the lode is 3 ft. wide, composed of faynes, mixed with good stones of lead. In the 20 fm. level, driving north, the lode is 5 ft. wide, and will produce 12 cwt. of lead per fm. In the rise in the back of the 20 the lode is 2 ft. wide, and will produce 10 cwt. of lead per fm. In the 10 fm. level, driving north of Bonville's shaft, the lode is 2 ft. wide, and will produce 7 cwt. per fm. We have sampled lead ore, computed 64 tons.—**S. THOMAS**: Jan. 2.

WEST ALFRED CONSOLS.—The lode in the 75 fm. level, west of old pump shaft, is 3 ft. wide, carrying a small branch of copper ore on the north part of it. The lode in the 65 fathoms level, west of the above shaft, is 2½ ft. wide, producing occasional stones of copper ore. The stopes in the back of this level, west of Blewett's winze, are worth 22d. per fm. The stopes east of the said winze are worth 15d. per fathom. Philips's shaft is still sinking north of the lode, and progressing favourably. The lode in the 65 fm. level, west of the same shaft, is 4½ ft. wide, worth 20d. per fathom. This end apparently is bordering on the rich bunch of ore driven through in the level above. The north part of the lode on which we are driving in the 55 fm. level, west of Philips's, is 3½ ft. wide, worth 35d. per fathom. From the appearance of the south part, we think it equally valuable as that of the north; we shall continue to drive on this part, to facilitate the opening on the ore ground, and shall take down the south part at or about the end of this month. The Boundary winze, below the 55 fathom level, is suspended, in consequence of an increase of water; but we shall hold it as early as possible by a rise from the back of the 65 fm. level, when we shall be able to stope east and west of the said winze, on some good ore ground. The stopes in the bottom of the 55, east of the Boundary winze, are worth 18d. per fm. Our prospects generally are favourable, and promise an increase of returns.—**S. S. NOELL**; **M. W. MICHELL**: Jan. 3.

WEST BASSET.—North Lode: The 94 fm. level east continues worth 2 tons of ore per fathom. In the winze sinking under the 8½ the lode is 5 ft. wide, producing 4 tons 3 tons. The 42 fm. level east produces 2 tons of ore per fm.—**Engine Lode**: In the winze sinking under the 30 the lode is 1 ft. wide, worth 2 tons; the same level driving east will turn out 3 tons per fathom. The 20 east produces stones of good ore.—**South Lode**: The 42 fm. level driving east, and the rise in the back of the same level, continues without alteration, the former producing 4 tons, and the latter 6 tons of ore per fm. The stopes and pitches are looking well.—**W. ROBERT**: Dec. 30.

WEST WHEAL PROVIDENCE.—Allen's branch in the 100 fathom level, driving west of the engine-shaft, is just as last reported. The 90 fm. level, driving west of Michell's shaft, on Tremayne lode, is poor. The stopes on Allen's branch, in the back of this level, are worth 9d. per fm. The side branch in the 80 fm. level, driving west of St. Aubyn's shaft, is maintaining its size, present value 10d. per fm.; this end is driving in ground that has been unproductive in the levels above. The stopes in this branch are worth on an average 12d. per fm. We have risen against Hawkins's shaft, above the 70 fm. level, 6 fathoms, branch worth 6d. per fm. The stopes in the back of this level are worth 5d. per fm. The 60 fm. level, driving west of Michell's, on the side branch, is worth 4d. per fm. The stopes in the back of this level are worth 8d. per fm. The stopes and pitches are looking well.—**W. ROBERT**: Dec. 30.

WHEAL EDWARD-S.—South Lode: The lode in the 52 west is 1½ foot wide, composed of capel and spar; this level is driven about 11 fms.: driving is suspended until something better is met with at a deeper level; the lode in the 52 east is 4 ft. wide, composed of mundic, capel, and stones of copper ore—driven about 6½ fathoms, and re-set to four men, 2 fms. stent, at 5d. We have resumed sinking the engine-shaft below the 52 by nine men, at 30d. per fm.—**North Lode**: Ensor's shaft is sunk on the course of the lode 16 ft. below the 41 fm. level; but operations are stopped, owing to the increased quantity of surface water, we hope to be able to sink again next month. The 41 is driven upwards of 10 fms. east; the lode in which is 5 ft. wide, unproductive, in consequence of a small cross-course being intersected; this lode is always unproductive within a few feet of a cross-course (on both sides) in Arthur's; the 41 east is re-set to six men, 2 fms. stent, at 3d. 10s. per fm.—**T. CARPENTER**: Jan. 4.

WHEAL GRENVILLE.—The lode in the 85 fm. level, driving west from the engine-shaft, is 3 ft. wide, and much the same character and appearance as last reported. We have been desulting the lode in the winze for the last fortnight, and shall take it down next week; we have quick water in the winze, which has impeded our progress in sinking. The ground is eased to what it has been in the 70 cross-cut, driving north from the engine-shaft.—**D. OSBORNE**: Dec. 30.

WHEAL LUDCOTT.—The engine-shaft is sunk 7 fathoms under the adit. The ground is less favourable for sinking than heretofore, in consequence of being mixed with strong floors of spar; but the killas, though a little more compact, is not deteriorated in its character. The eastern lode continues small; but contains more gossan than when last reported. We are now only about 46 fms. from Wheal Wray boundary, corresponding in position, and bearing to that lode, where there is in their southernmost point of operation—viz., the 12 fm. level—a good bunch of ore. The intervening distance between the two extreme points is about 90 fms. of unexplored ground, of which, as stated above, 46 fms. are included within the limits of our own sett, and having, consequently, their present distance from the boundary about 44 fms, less extent, sufficient to admit of many and important changes. I am persuaded we can do nothing better under existing circumstances than continue with all possible dispatch in our present direction, until the whole of this ground is laid open, and its merits, if possible, fully ascertained; to do which, if the ground continues as at present, will occupy about six months.—**R. KNAPP**: Jan. 4.

WHEAL MARY ANN.—We have cut through the lode in the 120 at Pollard's shaft, and find it to be 3 ft. wide, composed of cap and lead, worth 10d. per fm., with every other appearance as in the levels above. The lode in the 110, north of Pollard's shaft, is 2½ ft. wide, worth 15d. per fm.; in the same level south it is 2 feet wide, worth 10d. per fm. In the 100 north it is 2½ feet wide, worth 11d. per fm.; in the same level south it is 3 feet wide, worth 12d.; in the winze sinking under this level it is 2½ feet wide, worth 9d. per fm. In the 90 north it is 4 feet wide, worth 12d. per fm.; in the same level south it is 2 feet wide, worth 11d. per fm.; in a winze sinking under the 80 south it is 2 feet wide, worth 9d. per fm. The stopes and pitches are producing much as usual. We sold, on the 22d December, a parcel of lead ore computed 68 tons, to Messrs. Sime, Willyams, and Co., at 23d. 18s. 6d. per ton.—**P. CLYMO**: Jan. 4.

WHEAL MAUDLIN.—This day being our measuring for the past, and setting for another month, the ground cut down in the east end of engine-shaft measured 3½ solid fathoms, this makes the new shaft good to 2 fms. 3 ft. below the bottom of the 20 fm. level on the incline. The sinking in whole ground measured 3 ft., making the present bottom of shaft 3 fathoms below the bottom of the 20 fm. level on the incline; this shaft is set to sink as directed, by nine men, at 20d. per fm., 1 fm. in extent. The ironstone is almost all left to the west, only a little now in the western corner of the shaft, but there is in the bottom at present a hard cross-course; this, however, we shall, no doubt, soon get through. The 20 fathom level, driving south against the faynes, measured 1 fm. 4 ft. 9 in.; and the level east from this measured 3 fms. 4 ft. driven, set again to drive by four men, at 3d. per fm., 1 fm. in extent; the lode here is poor; the winze in the bottom of the 20 measured 1 fm. 0 ft. 9 in. sunk, and the stopes in the orcy part of the lode in this bottom measured 1 fm. 4 ft.; there has been nothing done here since last report, and the lode having been reported then good, I need not repeat that over. The tributaries in the back of the 20 fm. level have been working this week; but Shaw's pitch is nothing near so good as when set last month; indeed, the lode in the back appears to fail as fast as it has improved in the bottom; this pitch has been set again at 10s. in 17s., to two men, for one or two months. The pitch in the back of the 16 fm. level has been set at 5s. per ton for best rough mundic, 2s. 6d. per ton for clear fine, and 10. in 17. for copper, to two men, for one or two months. In consequence of the ore floors at Parr being extraordinarily full of other peoples' ore, we could not have ours divided to sample this week; it is, therefore, left until the 8th of January; we have been added to it, during the past week, 3 tons of fair quality ore, 1 ton of 17s. cwt. of low quality ore, what can be got round next week will also be added.—**W. TREGAY**: Dec. 30.

WHEAL MESSER.—At Michell's shaft, we have set a plat to cut in the 40 fathom level, and, when completed, shall prepare for sinking as fast as possible. In driving the 40 fm. level west of Michell's shaft, on Messer lode, we find it producing saving work; the lode in the 40 fm. level east is yielding about 2½ tons of copper ore per fm. In the 30 fm. level, east from Michell's shaft, the lode is at present unproductive; in driving east in this level, on Michell's branch, it is producing saving work. At Williams's shaft, we have set a plat to cut in the 10 fm. level, in order to prepare for sinking; in driving the cross-cut north in this level we are still in the iron-stone, but from the appearance of the ground we think we shall soon get through it. We have cut Williams's south lode in this level, and have driven east on it about 2 fms.; it is about 18 in. wide, composed of capel, quartz, and mundic, on the whole presenting a kindly appearance. The lode in the winze sinking below the adit level, on Williams's north lode, is producing nearly 1 ton of ore per fm.; in sinking the winze in this level, on Williams's south lode, it is producing stones of ore. In sinking the winze at the eastern boundary the lode is about 1 ft. wide, with a promising appearance.—**J. SECCOMBE**; **J. POLGLASSE**: Dec. 30.

—Agreeably to your request, I went through the mine on the 29th of December, and the points which called my greatest attention were those you are now working on—viz., Michell's shaft I find to be sunk 40 fathoms under the adit, where the lode has been cut through, the leader part of which is from 3 to 4 ft. wide. The eastern mine has been driven from 4 to 5 fathoms, and materially improved, yielding now 4 tons of ore per fm.; the western end has been extended about the same distance, is now of the most promising character, and producing from 3 to 4 tons of ore per fathom; the lode appears ably supported by the capel, to which it is closely attached, and getting down in more settled ground, and in sinking the shaft to the 50, I think, without a doubt, it will still materially improve. Michell's shaft, from the present easy appearance of the ground, might be sunk to the 50 in about six weeks. The 30 end east appears also to be getting in better ground, and I think you may expect a change here very soon for the better. The winze now stope from the 30 to the 40, I am told, will produce 3 tons of ore per fm. I am also of opinion that you will find a great deal of ore ground from Michell's along to, and west of, Edward's shaft at a deeper level, for here you have 20 fms. of high ground. In going through the adit south, towards Williams's, I find there are six lodes, some of which with very kindly indications, but as yet little or nothing done. Williams's shaft has been sunk from the adit to the 10, and a cross-cut has been driven south, and cut a lode, which they are now driving east on to where the ore has been seen in the adit above, and where, from appearances, you may expect a great improvement; the cross-cut has been driven north about 6 fms. through some hard ground, but which must now be near the lode, and from a winze sinking in the adit above, on same lode, which is now producing 2 tons of ore per fm.; when you cut this lode in the 10 (after leaving this hard ground) I have no doubt you will have a good lode, and it appears you will, in this part of the mine, very soon be raising a great deal of ore, which will be of good quality. The lode, which is called Trelowr south, underlays near the boundary; the ground not being yet holes I could say nothing of it, but a short time now should enable its worth to be estimated, as it comes into your sett, having made such vast quantities of ore in the adjoining mine, and even into your boundary—besides two other lodes which can be cut by driving a short distance south, which could be worked

conveniently, and be also drained of the water for 30 fms. deep, by means of Trelowr adit being brought up to this place. This work is on those three lodes on this point, is upwards of 200 fms. apart, and where very soon a great many more, in my opinion may be profitably employed. On looking over the arrangements of the mine altogether, and taking a general view of the underground work, I think a steady and progressive course should be pursued to carry out the principles first laid down, which appears judiciously displayed, for the development of the numerous lodes, and the result of which I feel confident will be highly satisfactory to all. I see on the floors new ores, computed to be 100 tons, to sample next week; and observing several good pitches on going through the mine, together with the new ground fast opening for others, your sampling must of necessity steadily and speedily increase, as well as the quality of the ore, which I observe is greatly improving in depth, it being of a more solid nature, and can be dressed with greater safety than the light black ore raised from the shallow level would at all admit of.—**J. DAVIES**: Jan. 2.

WHEAL ROBERT.—In my last report, I informed you that we had driven through a small cross-course, which had thrown the lode a little south; it has since been taken down, and is not quite so large, but much of the same character, as before, and I expect it will re-open again.—**W. NEIL**: Jan. 4.

WHEAL RUSSELL.—The dividing and casing down Matthews's shaft to the 62 is completed; we have commenced driving a cross-cut south towards the lode. The sinking of the winze below the 50 fm. level is suspended, in consequence of the water being so powerful. We continue driving the 50 fm. level east from Matthews's shaft; the lode is still 6 ft. wide, worth 5 tons of ore per fm. The driving of the 37 fathom level east has been continued; the lode is about 1½ ft. wide, with a rich leader of ore in the bottom part of the end. No lode has been met with in the 37 fm. level driving south on the cross-course. We continue to drive the 90 fm. level north on the cross-course east of Richards's engine-shaft, towards the great north lode; the cross-course has a very promising appearance, producing beautiful stones of ore. Our pitches, on the whole, are looking much the same as when last reported, turning out a fair quantity of ore.—**ALEXANDER BARTLEY**: Jan. 4.

WHEAL SAMSON.—We expect we have cut the capes of the lode here by cross-cut, and the water is very powerful.—**J. SPANOG**.

WHEAL SURPRISE.—Agreeably to your request, I yesterday inspected this mine. I went in the adit level driven by the oil men, and found a cross-cut driven east on a very promising lode; at the present depth, I should say it is a very rich lode; and the present company have commenced sinking a winze on it. They are down about 5 or 6 ft.; the lode is composed throughout of gossan, gneiss, spar, mundic, and rich coated ore. I went in the bottom of the winze, and broke some stones of ore, which I have now enclosed to you; and if the lode should turn out in quantity equal to quality, I do not hesitate to say that you will have one of the most productive mines in this neighbourhood; but I would strongly recommend the company to vigorously prosecute the eastern part of the mine, as there is a cross-course about 20 fms. east, from your present workings, which is of great advantage, and another further east in the same set; and I do think from the appearance of the orcy lode now opened on, and the appearance of the other lodes between these cross-courses, you will have an abundance of ore. I have no hesitation in saying that this is a very promising mine, and should be worked in a spirited manner. It at present warrants an outlay, which I think will safely be repaid and that before long.—**W. JEFFERY**: Jan. 4.

—We are compelled to suspend our operations for the present at the old whin-shaft, owing to an influx of water. We are now down nearly 11 fathoms under the adit level, but we cannot make any further progress for the present, as we cannot keep the water by manual labour, which is to be regretted. The lode in the winze sinking under the deep adit level is about 3 ft. wide, underlying north about 1 ft. in a fathom, with most exceedingly regular and well-defined walls, composed of spar, pebbles, mundic, and gossan, intermixed throughout with good spots of black and yellow ore—some saving work; it must, therefore, be considered a splendid looking lode at the shallow depth, and I anticipate we shall not sink many fathoms before we have a good course of copper ore. The lode in the 23 fm. level east is rather small, about 12 in. wide, composed of spar, mundic, and pebbles, with occasional small stones of yellow ore; this lode is in beautiful ground; the present price for driving is only 2f. 10s. per fm., and we are expecting shortly an improvement in this end. We are progressing satisfactorily with our cross-courses in the 33 fm. level, but we find no material alteration either north or south since last report.—**A. BRAY**: Jan. 4.

WHEAL TEHIDY.—In the 80 west lode is 20 in. wide, 9 in. of which is good; the other part of the lode is composed of spar and prian, with good looking killas connected. In the 50, west of diagonal shaft, the lode is 15 in. wide, and will turn out 1 ton of ore per fm., and from the present appearance is likely to improve. The perpendicular shaft is nearly down to the 50 fm. level. Some part of the next week we shall begin to open a plat, and then drive south towards the cauler lode. The 41 is driven upwards of 10 fms. east; the lode in which is 5 ft. wide, unproductive, in consequence of a small cross-course being intersected; this lode is always unproductive within a few feet of a cross-course (on both sides) in Arthur's; the 41 east is re-set to six men, 2 fms. stent, at 3d. 10s. per fm.—**T. CARPENTER**: Dec. 30.

WHEAL TREBARVAH.—Our prospects, on the whole, are looking much better than when last reported. The flat-roof shaft is sunk 8 fms. below the 40 fm. level, where the lode is 10 in. wide, worth 4d. per fathom; the ground at present being much easier than I had at any time seen it under the 40 fm. level. The lode in the end of the 40 fm. level, east of the shaft, is 16 in. wide, yielding some good copper ore; from the present appearance of the lode, I hope to be enabled to report more favourably next time. The lode in the end of the 30 fm. level, east of the shaft, is 8 in. wide, worth 5d. per fathom for copper ore. The lode in the end of the 20 fm. level west is split into two branches; this, I think, indicates our approach to the cross-course; it is still without ore.—**S. OSBORNE**: Dec. 27.

WHEAL TREFUSIS.—The lode in the 44 west is 15 in. wide; and here we have a little improvement—that is, a goodstone of ore, with a similar appearance as in the 24, though we have 6 fms. more to get under the winze. As to any other part of the mine, there is no particular change.—**W. WILLIAMS**: Jan. 2.

WHEAL TRELAWNY.—North Mine: In the 108 fm. level, north end, the lode is 1½ ft. wide, worth 3d. per fm.; in the same level, south end, it is 1 foot wide, composed principally of fluor-spar, with spots of lead; in a rise in back of this level the lode is 1 ft. wide, worth 8d. per fm. In the 98, north end, the lode is 2 ft. wide, worth 3d. per fm.; in the same level, south end, it is 2 feet wide, worth 8d. per fm.; in the same level, south end, it is 1½ ft. wide, worth 7d. per fm. In Chippendale's shaft, the lode is 2 feet wide, worth 8d. per fm.; in the same level, south end, it is 1½ ft. wide, worth 7d. per fm. In the 78, north end, north of Chippendale's shaft, the lode is 6 inches wide, worth 4d. per fm.; in a winze sinking below this level the lode is 1 ft. wide, worth 8d. per fm. In the 55, north end, the lode is 9 in. wide, worth 4d. per fm.—South Mine: We are still driving in killas, both north and south, by the side of the lode in the 120. In the 107, south end, the lode is 1 ft. wide, worth 8d. per fm.; we have commenced to sink a winze in the bottom of this level, where the lode is 10 in. wide, 9 in. per fathom, and will turn out 1 ton of ore per fm., and from the present appearance is likely to improve. The lode in the end of the 40 fm. level, east of the shaft, is 16 in. wide, yielding some good copper ore; from the present appearance of the lode, I hope to be enabled to report more favourably next time. The lode in the end of the 30 fm. level, east of the shaft, is 8 in. wide, worth 5d. per fathom; the lode in the end of the 20 fm. level, east of the shaft, is 6 inches wide, worth 4d. per fm. The lode in the 30 fm. level, east and west of the middle shaft, on the same lode, is 2 ft. wide, worth 8d. per fm. In the 20 fm. level, east of Arthur's shaft, the lode is 1 ft. wide, worth 8d. per fm.; in the same level, south end, the lode is 2 ft. wide, worth 8d. per fm. In the 18 fm. level, east of the shaft, the lode is 1 ft. wide, worth 8d. per fm.; in the same level, south end, the lode is 2 ft. wide, worth 8d. per fm. In the 16 fm. level, east of the shaft, the lode is 1 ft. wide, worth 8d. per fm.; in the same level, south end, the lode is 2 ft. wide, worth 8d. per fm. In the 14 fm. level, east of the shaft, the lode is 1 ft. wide, worth 8d. per fm.; in the same level, south end, the lode is 2 ft. wide, worth 8d. per fm. In the 12 fm. level, east of the shaft, the lode is 1 ft. wide, worth 8d. per fm.; in the same level, south end, the lode is 2 ft. wide, worth 8d. per fm. In the 10 fm. level, east of the shaft, the lode is 1 ft. wide, worth 8d. per fm.; in the same level, south end, the lode is 2 ft. wide, worth 8d. per fm. In the 8 fm. level, east of the shaft, the lode is 1 ft. wide, worth 8d. per fm.; in the same level, south end, the lode is 2 ft.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET, London, Jan. 5, 1855.

COPPER.	£. s. d.	QUICKSILVER.	p. lb.	1 10-1 11
Sheathing and bolts	0 1 3	SPELTER.	per Ton.	
Bottoms	0 1 3	Foreign	24 13 9	
Old (Exchange)	0 1 3	To arrive	24 13 9-25 0	
Boat selected	129 0 0			
Tough cake	126 0 0			
Tile	126 0 0			
South American	120 0 0			
IRON.	per Ton.			
*Bare, Welsh, in London	9 0 0			
Ditto, to arrive	8 0 8-10 0			
Nail rods	8 15 0-15 0			
," Stafford, in London	10 10 0-11 0			
," ditto	10 0 0-12 0			
Hoops	11 5 0-12 0			
Sheets, single	12 0 0-13 0			
Pig, No. 1, in Wales	4 15 0-5 15 0			
Defined metal, ditto	-			
Bars, common, ditto	7 0 0-7 5 0			
Ditto, railway, ditto	6 10 0-6 15 0			
ditto, Swedish, in Lond.	13 0 0-14 0			
Pig, No. 1, in Clyde	3 8 0-3 9 0			
LEAD.				
English Pig	23 0 0-23 10 0			
Ditto sheet	24 0 0-			
Ditto red lead	24 0 0-			
Ditto white	27 10 0-29 0 0			
Ditto patent shot	26 10 0-			
Spanish, in bond	22 5 0-23 0 0			
American	none.			
FOREIGN STEEL.				
Swedish, in kgs., p. ton	17 10 0-18 0 0			
Ditto, in fagots	18 10 0-			
English, Spring	22 0 0-24 0 0			
* In Liverpool, 5s. per ton less.				
+ At the works, 1s. to 1s. 6d. per box less.				
In Liverpool, 6d. per box less.				

REMARKS.—In reviewing our market for the past year, it affords us much pleasure to be enabled to state, according to official returns, there has been an average amount of business transacted in most descriptions of metals, although many events have transpired that would at times have considerably affected their position, but which in most cases have merely caused a temporary reversion.

Previously to the Commissioners of Customs having issued a prohibition on the export of merchandise to all ports north of Dunkirk, our commerce suffered very slightly by the continuance of the war; but, since, a rather serious effect has been produced by the carrying out of the order.

It was generally anticipated that the notorious failures of certain speculators in the metal trade would have materially injured our market for some time, by forced sales being made at reduced rates, so as to realise for the benefit of the creditors; but, on the contrary, our market has been gradually fed, and consequently the depression has not proved to the extent that circumstances appeared to present.

The unsettled state of affairs in America has had some influence in the late fall of prices in all descriptions of manufactured iron. It is very essential that a new principle be adopted in the management of the great schemes they have in hand, or a proper regulation of the present unsatisfactory system, which must be established upon such basis as will ensure full confidence, and not partake of that wild speculative character which has created such a fearful panic.

The consignments of goods to Australia have been too extensive, and the result is becoming manifest by the occasional failure of merchants in the City.

A slight re-action in the leading articles of our trade occurred on the announcement of the Bank having raised their discount. The rates of exchange in India have also proved a drawback with merchants, who have in many instances delayed the execution of their orders on that account.

The year has closed with a quiet market for metals, and the prospect does not promise a very favourable turn in business until the ensuing spring, when much will depend upon the course of political matters in Europe.

COPPER has preserved a steadiness in value hitherto unprecedented, no alteration in the fixed price having been announced at any period throughout the year, although in the spring several parcels were being offered under current rates, and some reduction was expected; but smelters were not disposed to yield to the pressure, as stocks were light, and but little Russian would probably be imported. The market closes firm, with a fair demand; and as the value of ores is lately much enhanced, a continuance of present price will most likely be maintained. A large quantity of German has recently been imported, and appears to be of good quality.

IRON has been well placed, and realised high prices until the latter part of the year, when a fall of about 30s. per ton took place. Rails have been less active, which may be accounted for by the extreme flatness of trade in America, and want of confidence amongst sellers to accept their bonds. Several large orders have been executed for France, India, and Australia, and also for some of the railways in England. The manufacturers of English bars have had a fair season, at remunerative prices, but are now selling at rates that can scarcely be said to defray the expenses of keeping the furnaces in blast, the price of pigs not being in proportion. Staffordshire qualities have been well supported, especially hoops and sheets; the demand for the latter article, however, is now much diminished, and the recent reduction in prices shows an excess of 10s. on plates, being 30s. per ton, and 20s. per ton on all other descriptions. Swedish bars are scarce, and are realising high prices, compared to English qualities. Scotch-pigs have continued much firmer in price than the usual wide fluctuations generally subject them; stocks at one time were greatly reduced by the increased shipments and extensive consumption. The last few months the demand has not been quite so active, but the duty in France being further abated on the commencement of the new year, is likely to keep sellers firm at our quotations.

In LEAD there have been some large sales effected, but recently the market has been dull, partly in consequence of exports being prohibited to the northern ports of Prussia. The shipments to China have been considerable. The imports from Spain appear to be about the quantity we annually receive. Prices of both English and foreign have not differed materially, and holders have been mostly enabled to realise at ruling rates.

The market for SPELTER continued moderately steady, and holders became rather firm, when a large quantity in second hands was thrown on the market, and prices rapidly receded to 20s. per ton; some few hundred tons were bought up at this price for French account. After a short time it again gradually rallied, and a brisk demand sprung up at rising prices, 25s. 10s. to 26s. per ton having been paid; since which, in spite of a decreasing stock, it has tended downwards, sellers quoting 24s. 15s. per ton cash. The following is a return of the stock in London on the 1st of every month, from Jan., 1854, to January, 1855—viz., Jan., 8800 tons; Feb., 7773 tons; March, 6700 tons; April, 6187 tons; May, 7132 tons; June, 7680 tons; July, 6281 tons; August, 6314 tons; Sept., 5664 tons; Oct., 4823 tons; Nov., 4274 tons; Dec., 4010 tons; Jan., 3682 tons; the last return showing a decrease of about 5000 tons compared with this time last year, and the price then was quoted 24s. per ton.

English TIN gradually declined from 130s. to 114s. per ton, when a much better feeling was observed, and smelters again advanced the price to the present quotation—viz., 117s. per ton. The market, although quiet, is firm, for there is now no competition, as the trade is confined to very few houses, who will not undersell each other, and may be said to be monopoly. Since the Dutch sale, Bances has been dull of sale, and parties who bought then have been unable to realise at any profit; it is now difficult to obtain for lots purchased at the sale even the price that was then paid. During the year the shipments from Holland to America have much diminished. Straits has arrived in large quantities; some rather hard quality sold at 100s., and some of mixed quality at 110s. per ton, to the English smelters; there is not much enquiry at the moment, and the last sale reported was at 111s. per ton.

There has been less enquiry for TIN-PLATES for export; manufacturers have not varied their price more than 2s. to 3s. per box throughout the year, and have kept the make under, so that speculators have not had an opportunity of buying at low rates; therefore, our market has not been pressed with many second-hand parcels, and just now it is quite cleared.

Swedish STEEL has maintained a good position. Prices have ruled high. At the beginning of the season about 9000 kgs. were bought at Gottenburg, for Hamburg account, which nearly cleared the market there of its superfluous stock; and as several large shipments have been made to the East out of the stock in this market, the scarcity has led merchants to hold for full prices; the market closes with strong buyers at 17s. per ton, sellers at 17s. 10s. to 18s. per ton.

A large importation of QUICKSILVER has been made during the year, and the demand not proving adequate to the supply, prices gave way, and we

note a difference of 4d. per lb. in the value of this metal since this time last year. It is principally in the hands of one house.

[In our next Journal, we shall publish a general statement of the prices of metals during each month in the year.]

GLASGOW, Dec. 30.—The Scotch Pig-iron trade has again, in the past year, been characterised by great activity and prosperity. Contrary to the general and natural anticipation, the total deliveries have early reached the extraordinary figure of the preceding year—a result which is surprising, when we consider the great depression in all other staple manufactures, the tight money market, and the adverse condition of mercantile affairs, especially in the latter part of the year. The fluctuations in the price of pig-iron have been considerable. The opening price of the year was 79s. but on the resumption of business it declined to 73s. 6d.—recovering, however, early in February to 78s. and 79s., about which quotations it remained, if we except a momentary decline in March, until the end of April. Meanwhile, in spite of the high price (25s. per ton higher than in the spring of 1853), the demand both for shipment and for all other staple manufactures, the tight money market, and the adverse condition of mercantile affairs, especially in the latter part of the year. The fluctuations in the price of pig-iron have been considerable. The opening price of the year was 79s. but on the resumption of business it declined to 73s. 6d.—recovering, however, early in February to 78s. and 79s., about which quotations it remained, if we except a momentary decline in March, until the end of April. Meanwhile, in spite of the high price (25s. per ton higher than in the spring of 1853), the demand both for shipment and for all other staple manufactures, the tight money market, and the adverse condition of mercantile affairs, especially in the latter part of the year. The fluctuations in the price of pig-iron have been considerable. 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THE MINING JOURNAL.

pointed, consisting of Dr. Clarke, Messrs. Hill, Clemow, Stebbing, and Weeks. A full report will be found in another column.

At Tamar Silver-Lead Mining Company meeting, on Tuesday (Mr. G. B. Carr in the chair), the reply of the directors to the report of the committee of investigation was read. A resolution was proposed, that it be received, adopted, and entered on the minutes of the company; to which an amendment was moved, that the reply of the directors was unsatisfactory. The amendment was carried by a large majority. A second resolution was moved to the effect, that the shareholders had no confidence in the directors, and that they be requested to resign, which was carried, with two dissentients. The directors refusing to resign, a requisition was handed in, signed by the necessary number of shareholders, to wind up the company in the Court of Chancery. The proceedings, which terminated with a cordial vote of thanks to the chairman, are fully detailed in another column.

At Wheal Gilmar meeting, on the 27th of Dec., the accounts showed—

Labour cost, September, 13s. 0s. 8d.; October, 12s. 1s. 8d.; November, 15s. 1s. 2d.; merchants' bills, 28s. 1d.; 12s. 4d.—Balance last account, 5s. 6d.; leaving balance against adventurers, 70s. 0s. 4d., which was divided *pro rata*, and collected. Capt. W. Johns and John Morecom reported that the engine-shaft was progressing favourably, and was down 13 fms. below the 10 fm. level, and in about three months they expected to cross-cut 20 fms. deeper under the rich branch of tin above. The 10 fm. level had reached the copper lode—pink and grey copper ore, promising; the 10 east has tin of very rich quality. The deep adit was worth 4s. per fm. When the flat-rods are completed, and the shaft sunk a few fathoms, they expected to meet current expenses.

At the Calstock Consols meeting, on the 29th of December (Mr. John Bayly in the chair), the accounts showed—Calls, ore bills, and advances, 88s. 1d. 15s. 6d.; materials, 63s. 11s. 4d.; overdraft, 34s. 10s. 5d.—Balance last account, 5s. 6d.—By calls on forfeited shares, 18s. 10s. 6d.; dishonoured bills, 27s. 1s.; mine cost to end of Sept., 77s. 16s. 1s. 5d.; Oct. and Nov., 26s. 7s. 1s.; paid off loans, 67s. 2s. 5s. 9d.; leaving balance against adventurers, 91s. 6s. The estimated balance of liabilities over assets at next meeting was 53s. 3s. 5d. A call of 3s. 6d. per share was made; and it was resolved that the forfeited shares be reasonably divided, and that Capt. Collom's report be acted on. It recommended to continue driving on the south underlie lode, to suspend the cross-cut on the north underlie lode, to continue the latter in driving east, and not to commence any other operations until the Zion lode is cut east, where he confidently expects it will prove rich and productive.

Laxey, East Logylas, and Fronoch, have sold lead ore.

Leeds and St. Aubyn, Great Polgoon, and St. Austell Consols, have sold black tin.

Cuban United Mines have sampled a parcel of silver-lead ores, computed 50 tons.

The Coosheen Copper Mine will sell, on the 16th inst., 64 tons of ore.

Trewethen Mine sampled, on the 30th Dec., 24 tons of silver-lead ore, and the pitch in the bottom of the 44 fm. level, west of Holgate's, reported last week to be worth 80s., is still looking well.

At Wheal Langford, the 64-inch pumping engine was set to work on the 4th of January, and the agent states continue to work in style. It is expected they will drain the mine to the 20 fm. level within 14 days, and resume sinking the engine-shaft by 12 mon.

At Calstock United Mines, the sump-shaft is sinking on the course of the great main lode below the 50, and in nine weeks they expect to reach the 60, at which level, or a few fathoms deeper, it is believed, from the underlie, that Brewer's lode will form a junction. This lode has not been seen much under the adit, but there every kindly indication of proving a valuable copper lode. The costs have been considerably reduced, and all the outgoings are concentrated to this spot.

At Maudlin Mine, they are in course of sampling a rich parcel of copper mine naturally makes many of the local shareholders and agents sanguine as to its success. The ore is represented to be of first-rate quality: the sale of it will be proof

of a superior quality, as will be seen by the report amongst the Mining Correspondence. The 74 end east is daily improving. For the last four weeks, 170 tons have been sampled. The flat-rod shaft is down below 100 fms. from adit. It was at this depth that the Great Crenier, Oatfield, and Abram, have made such large returns.

From West Par Consols, Capt. Thos. Floyd reports that they have cut another lode in the north cross-cut, about 3 ft. wide, containing muriatic and soda, letting down plenty of water. About 12 fms. further driving will cut two other lodes.

From Perran Consols, Capt. Francis Gundry and James Richards report that the engine-shaft has been sunk 8 ft. since last report; the ground at present is more favourable than it has been. The 50 fm. level west has been driven 8 fms.; the lode is 7 inches wide, unproductive. The tribute pitches look well.

From Mount's Bay Consols, Capt. James Richards reports that the engine-shaft has been sunk 4 feet since last report; the ground much the same. The north lode is about 20 inches wide, producing good stones of copper, and has a very promising appearance.

From East Wheal Russell, Capt. Wm. Metherell reports that there is a light blue killas coming in the north side of the shaft faster than the regular underlie of the lode, carrying the lode more south. The lode in the bottom of the shaft is still of the same character as last reported, composed of gossan, &c. They have broken good stones of ore from the 55 east the past week.

At Hawkmoor Mine, they have sampled 36 tons of good ore for the last four weeks. The walls for the new wheel, 15 feet breast, are getting up as fast as possible. In five weeks, it is expected the wheel will go to work, and the shaft be sinking in a good course of ore below the 30 fm. level.

At Old Trewether Consols, they are busy dressing lead. Everything underground, as well as at surface, progresses favourably, and the engine still works beautifully.

The Tamar Maria Mine has been re-dialed by Mr. Jonathan Davey; owing to the appearance of the lode in the cross-course adit, and the level extended thereupon, it is now proved that the branch cut on the 11th of November is not, as was supposed, the No. 4 adit at all, but simply a flyer thrown off from the main lode, broken up, doubtless, from its proximity with the cross-course. This has been ascertained by clearing up a shaft opened at surface to a depth of 5 fathoms, and from the dip of the lode therein, as dialled by Mr. Davey, it is now calculated that the adit must be driven from 6 to 8 fms. further east it is intersected. The lode in the shaft is 4 feet wide, well defined, and with two good walls, and has altogether a most promising appearance.

There has been a serious fall in Sotridge Consols shares—from 4s. the highest price at which they were done, they have declined to 1s. 6d.; and the report of this week appears not calculated to arrest their downward tendency, as they have, unfortunately, had an accident at the mine, which has prevented their proceeding with the underground workings.

During the week, shares have changed hands in the following:—

DIVIDEND MINES.—Alfred Consols, Algoed Consols, Bedford United, Basset, South Caradon, South Tamar, South Toliou, South Wheal Frances, Stray Park, Camborne Vean, Tamar Consols, Tincroft, Trewhane, Trewethen, West Basset, West Providence, Wheal Arthur, Wheal Bassett, Wheal Butler, Wheal Golden, Wheal Trelawny, Wheal Tremayne, Mining Company of Ireland, Wicklow.

MINES WHICH HAVE SOLD ONE.—Bainbridge Consols, Balleswidden United, Bell and Larant, Boiling Well, Calstock Consols, Calstock United, Cilgaff and Wentworth, Cradock Moor, Cwm Darren, Dairlyh, Darren, East Alfred Consols, East Gwennap, East Tamar, Gwennap United, Great Sheba Consols, Great Wheal Alfred, Great Wheal Badarn, Great Wheal Vor, Hawkmoor, Lelis and St. Aubyn, Leeds Town, Mill Pool, Molland, Nantico and Penhriw, Nanty-Car, North Buller, North Downs, North Wheal Croft, North Wheal Robert, North Wheal Trelawny, Orsed, Pembroke, Rhiw, Roswarne, Sortridge Consols, South Crenier, South Garraw, St. Austell Consols, Trebella Consols, Trewen Consols, Tyn-y-Worgiold, Tyn-y-Berth, Vale of Towy, West Stray Park, Wheal Friendship, Wheal Guskus, Wheal Kitty, Wheal Langford, Wheal Tre-fus, Wheal Uny, Wheal Zion, Tawan.

MINES WHICH HAVE NOT SOLD ONE.—Bodewel, Cefn Gwyn, Coniston United, Wheal Frongoch, New Wheal Friendship, North Hington Consols, West Phoenix, Wheal Gill, Wheal Ludecott.

In Foreign Mines, the market has exhibited some little activity, and, with the exception of Royal Santiago shares, higher prices have been maintained.

Transactions were effected yesterday in National Brazilian at 1s. 6d.; Cobre Copper, 50; Linas, 7s.; and United Mexican, 2s. The closing price of Imperial Brazilian was 2s. to 2s. 1d.; St. John del Rey, 30 to 32; Copiapo, 15 to 17; Pontigibaud, 15 to 16; Royal Santiago, 2s. to 3s. The following quotations are merely nominal:—Adelaide Land and Gold, 1s. to 1s. 6d. per share; Australian Gold, 1s. 16s. to 1s. 24s. per share; Lake Bathurst Gold, 1s. 16s. to 1s. 24s. per share; Australian Consols, 1s. to 1s. 24s. per share; London and Virginia Gold and Copper, 1s. 16s. to 1s. 24s. per share.

In Miscellaneous Shares, the market has been dull, and prices weaker. Business was done yesterday in Crystal Palace shares at 2s. to 3s, being a fall of 1s. 6d. on our last quotation. Australian Agricultural have been gradually declining, and were 3s lower yesterday, changing hands at 3s to 3s. 1d. Transactions were effected yesterday in Scottish Australian Investment at 1s., and South Australian Land, 9s. to 9s. The closing price of Berlin Water-works was 2s. to 2s. 4d. Electric Telegraph, 17 to 18s.; Netherlands Land, 1s. to 1s. North British Australasian, 3s. to 3s. 1d. Van Diemen's Land, 1s. to 1s. In Joint-Stock Banks, and a large freight bill, 20s. to 24s.; and a small, but very pure, nuggets. Another of the passengers had a magnificient cloak, which it was composed were grey, and others: a darker colour; the fur is very soft. When the *Lady Jocelyn* left Melbourne trade was dull, and commercial failures were 50 per cent., were forwarded to us. At the same period it was stated that the great obtracie in forming any permanent establishment in the district was the total deficiency of water. This has since been proved to be groundless. Within a few feet of the surface, a good and sufficient supply has been obtained; and there is every geological indication that it will be found in every valley. The principal ores are the green and brown oxides, malachite, and grey and purple carbonates. The formation of these is granite, gneiss, and mica schist. The ores do not appear to be deposited with all the necessary connecting work on board. An engineer and carpenter go out as passengers in the *Young Marquis*, who have been engaged in the construction of the whole, and who will superintend the putting of it up. Everything has been put together here by them, and every piece marked, so that no difficulty or delay can arise at the mines in the erection. The last services from Mr. Ram, state that he was at the mines busily engaged in preparing the roads, and clearing the mine. He had engaged several men from Jamaica, who, together with the Germans sent out with Mr. Coulton, in September, were in good health.

We had occasion, in July last, to draw attention to the deposits of copper ore which had been found in the vicinity of Port Natal. We have since learned that on the opposite side of the Cape, at Namqualand, rich and extensive deposits have been known; and some five years since specimens of the ores, varying from 45 to 50 per cent., were forwarded to us. At the same period it was stated that the great obtracie in forming any permanent establishment in the district was the total deficiency of water. This has since been proved to be groundless. Within a few feet of the surface, a good and sufficient supply has been obtained; and there is every geological indication that it will be found in every valley. The principal ores are the green and brown oxides, malachite, and grey and purple carbonates. The formation of these is granite, gneiss, and mica schist. The ores do not appear to be deposited with all the necessary connecting work on board. An engineer and carpenter go out as passengers in the *Young Marquis*, who have been engaged in the construction of the whole, and who will superintend the putting of it up. Everything has been put together here by them, and every piece marked, so that no difficulty or delay can arise at the mines in the erection. The last services from Mr. Ram, state that he was at the mines busily engaged in preparing the roads, and clearing the mine. He had engaged several men from Jamaica, who, together with the Germans sent out with Mr. Coulton, in September, were in good health.

The Fort Bowen Gold and Silver Mining Company have chartered the vessel, the *Young Marquis*, now lying in the cutwater, Plymouth: she finished on Wednesday taking in her cargo of machinery, bricks, coal, cement, railway iron, &c., and will at once proceed to sea. The machinery, which has been made by the well-known firm of Messrs. Nicholls and Williams, of Bedford Foundry, Tavistock, and of the Rose Vale Foundry and Hammer Mills, is most complete, consisting of steam-engine, with duplicates of all parts likely to injure, boilers, pumps, bobwork, stamps, water-wheel, saw-mills, packing machines, &c. There is also a supply of amalgamating barrels, and other apparatus, with all the necessary connecting work, on board. An engineer and carpenter go out as passengers in the *Young Marquis*, who have been engaged in the construction of the whole, and who will superintend the putting of it up. Everything has been put together here by them, and every piece marked, so that no difficulty or delay can arise at the mines in the erection. The last services from Mr. Ram, state that he was at the mines busily engaged in preparing the roads, and clearing the mine. He had engaged several men from Jamaica, who, together with the Germans sent out with Mr. Coulton, in September, were in good health.

The South Australian Mining Company have received the following extract from a letter received by a shareholder, a merchant of London, from one of the first merchants residing at Adelaide, dated Adelaide, Sept. 18, 1854:—“We must really apologise for omitting to reply to the enquiries contained in your letter of the half-year, 10,545.—Receipts, 64s. 0d.; leaving balance against the company on the six months' working, 44s. 2d.; but out of this amount, 17s. 0d. was paid for pertenencias, &c., and for a cargo of timber, which will be used in the subsequent monthly workings of the mine, so that the actual loss amounted to 26s. 2d. Several proprietors having expressed themselves in strong terms of the confidence they had in the able management of the directors, a call of 1s. per share was unanimously agreed to. The proceedings terminated with a cordial vote of thanks to the chairman and directors.

The Grand Duchy of Baden Chartered Mining Company have advised to the inspection of the shareholders, previously to its being crushed.

At the Royal Santiago Mining Company half-yearly meeting, on Wednesday (Mr. John Taylor, jun., in the chair), the accounts showed—Total expenditure for the half-year, 10,545.—Receipts, 64s. 0d.; leaving balance against the company on the six months' working, 44s. 2d.; but out of this amount, 17s. 0d. was paid for pertenencias, &c., and for a cargo of timber, which will be used in the subsequent monthly workings of the mine, so that the actual loss amounted to 26s. 2d. Several proprietors having expressed themselves in strong terms of the confidence they had in the able management of the directors, a call of 1s. per share was unanimously agreed to. The proceedings terminated with a cordial vote of thanks to the chairman and directors.

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NOTICES TO CORRESPONDENTS.

PATENT FURNACES, AND THE LAW OF PATENTS.—Sir: My attention has been drawn to a notice in your Journal of last Saturday, of some legal proceedings having been taken, in which Mr. Lee Stevens was the plaintiff, on the subject of an infringement of his patent. As my treatise "On the Combustion of Coal" appears to have been referred to, I am the more anxious to know what those proceedings were. May I request that you, or any of your correspondents, will state where a report or the trial or proceedings can be obtained.—C. W. WILLIAMS: Jan. 2.

PEAT, AS A SUBSTITUTE FOR CHARCOAL.—Sir: A correspondent in your last Journal, after referring to the ingenious process patented by Messrs. Gwynne and Co., for applying peat as a fuel for the reduction of ores, concludes his series of remarks on the difficulty that still exists in the profitable use of peat (arising chiefly from the want of cheap means of giving this fuel sufficient consistency, and of ridding it of earthy matter, which in some instances it, he thinks, met with in quantities sufficient to render it an unfit fuel for blast furnaces), &c., by expressing his sincere anxiety that researches having in view the object of rendering peat fuel fit for every purpose should succeed. Now, feeling satisfied that I have contrived the means of getting over every difficulty there was to contend with in the preparation of peat, so as to make it a fuel perfectly fit for metallurgical and every domestic purpose, I shall be happy to show any one coming from you a sample of the fuel I here allude to, and give an explanation of my way of preparing it, convinced, as I am, that I shall be able to leave no doubt in future charcoal can, by this means, be most successfully replaced, and with a largely remunerating profit to the manufacturer of it, in certain parts of England, Scotland, and Ireland.—B. DU M.

OUR MODERN EL DORADOS.—Sir: I dare say there may be many, like myself perhaps, entertaining suspicion on that Mr. Martin's letter, in your last Journal, in spite of what he evidently wishes to convey to the contrary, was dictated *rayther* more in the spirit of "avenging private wrong" than the consideration of the "interests of the shareholders;" but whatever may have been the feeling which prompted it, its truthfulness ought at once to be tested by the committee of investigation. The hints concerning the "qualification" and the "bonuses" are stern inuendos thrown out against the character of the directors, and their significance renders it impossible that they (the directors) or the shareholders can remain in a state of quiescence on the subject. I hope, however, to see in the current Number of the *Mining Journal* that the directors avow themselves proof against such suspicion, by daring Mr. Martin to prove them well-founded charges.—A RECENT SHAREHOLDER: Jan. 4.

PORTUGAL MINING COMPANY.—Sir: I should feel obliged if the management would furnish some information explanatory of the present position and prospects of this undertaking.—A SHAREHOLDER: Jan. 3.

"2, 5." (Barnsley).—There is at present no patented or particular apparatus for the purposes mentioned; it only requires a good galvanic battery, with sufficient length of insulated wires, to reach the bottom as the sinking proceeds. Messrs. Knight and Sons, Foster-lane, London, supply the apparatus, and will furnish all information. As to gun-cotton, it is not to be purchased in England: the patent for this country was purchased by Messrs. Hall, the gunpowder manufacturers, of Dartford, who refuse to license its sale; but, of course, it can be made for private use, and our correspondents can obtain the necessary instructions as to its formation, erratic, and dangerous compound. An interesting article on its nature and properties will be found in last week's *Mining Journal*. The suggested application of gun-cotton to blasting purposes, to propelling machinery, and on the fearful explosion at Messrs. Hall's manufactory at Faversham, on the 14th July, 1817, will be found lucidly and fully commented on in our columns of that and the next year.

"J. F." (Sheffield).—Several machines for the purpose have been constructed. Owing to the suspension of business, consequent on the period of the year, the respective merits of the several appliances for the reduction of the ore could not be correctly ascertained. The definite information will, in all probability, be arrived at in the course of the ensuing week.

DEVON BURRA BURRA MINE.—The secretary begs to contradict the statement made by Mr. Hodge in last week's *Mining Journal*, that the appointment of the manager was "without the consent of the shareholders." The committee have received letters from shareholders, suggesting to them the advantage of engaging the services of Mr. Wellerstan, and that gentleman having been present, and introduced at the first general meeting after his appointment, that meeting had the power of nullifying his election by the committee, had they seen fit so to do. It is to be regretted that, in order to strengthen his comparison with the manager's salary and the mine cost, Mr. Hodge should have stated the one at the maximum, and the other much under the minimum, amount; as also that he should complain of no meeting having taken place "for some period," when he must be fully aware that a meeting was held in October last, of which more than 10 days' notice was given him by circular, and which he cannot deny.—Little Tower-st., City, Jan. 5.

We regret to announce that our Dublin Correspondent is seriously indisposed, and thus prevented furnishing his usual communication. We hope, however, to find him sufficiently recovered to prepare it for our next Journal; as also some particular information respecting the Mining Company for Ireland, which illness has prevented him sending for our present Journal.

THEORETICAL AND PRACTICAL AGENTS.—The communication of "A Cornish Miner" (Bodmin) has some good and pointed remarks on this subject; but as his letter is scarcely adapted for our columns, we shall endeavour to give its spirit, discarding what appears superfluous. He observes that some of our correspondents, who represent themselves as being the promoters of true and legitimate mining, treat the practical agent as a "weathercock," turning any way for his own interest, and publish him in the *Mining Journal* as being totally incapable of properly filling the situation in which he is placed, or of judiciously appropriating his employer's money. There may be a few who stand high in the estimation of the speculator, and are employed at times to inspect the mining districts, but they and their reports will long be treated as a fraud; for however long their practice, or great their judgment, these must and will be turned to bad account while dictated to by managers and directors. "A Cornish Miner" mentions some cases in point. A company was formed with a capital of 15,000*l.*, and proceeded to work the mine, with a London theoretical agent placed over the thoroughly practical ones. To show his authority, he stopped the sinking in the only productive part of the mine, and the consequence was the 15,000*l.*, and in another similar case 20,000*l.*, were squandered and lost—the results of employing "invincibles" and "invulnerables." He can mention many sad cases of ignorance or fraud, or both, which he will furnish us with at a future time, and which, without too much irrelevant comment, we shall be glad to insert.

DEVON BURRA BURRA MINING COMPANY.—The communication received from "A Shareholder" in a great measure corroborates Mr. Hodge's statements; in addition to this there are other complaints. These, however, can at present be only considered *ex parte* statements. The committee of management, if they called a meeting of the shareholders, would probably be enabled to afford satisfactory explanations. In our opinion this would be, under present circumstances, a salutary course, as much ceremony that now exists would, by this proceeding, be dispelled.

"A Mining Shareholder."—Exposures are daily taking place; individuals of dubious character have had their misdeeds laid before the public; an apparent indignation has been excited. In the course of a few weeks this has subsided, and in every instance they have returned to the scene of operations, and, in most cases, prosecuted their nefarious and delusive trade with greater success than previous to detection.

COCAS AND CUBA MINES.—Sir: The "Shareholder," who has replied to my note at great length, very nearly coincides with my views, as to the neglect in auditing the accounts; my opinion is, that the shareholders, seeing they had only one director to watch over their interests, should have a meeting every three months, including their six-monthly general meeting, which would not have been too often; as it is evident, from the accounts of the meetings lately published in your Journal, that the companies which have five or six directors have more than they can do to keep the confidence of their shareholders; then why leave a company, where there is 350,000*l.*, at stake under the management of one only? The "Shareholder" thinks me to be a friend of Mr. Oxenford's; whose friend will he think that I am, when I say, that if prompt and speedy measures are not taken, the shareholders will discover themselves in difficulties which they will find next to impossible to surmount? Delays are dangerous. The blacks alone are worth more than three times the liabilities; but I shall not be surprised to hear that they are transferred over to the St. John Rev Company for six years, to pay the liabilities. It appears, from the last advice from the mines, that they have to pay all the expenses at the mines out of the gold they extract; this indicates in strong terms that they have neither funds nor credit; and the applying the gold to pay the expenses in Brazil, is a "novel" system, which many will be surprised at. And suppose they should be for a period of three or six months without extracting any gold, "which has occurred in the rich mine of Gongo Soco," what will they do to feed and clothe 500 blacks, and pay their other local expenses?—MEDIATOR: Jan. 2.

"A Miner."—At the Lackamore meeting, it was decided that the directors should introduce some rules for the government of the mine, assimilating to the Cost-book System. It is anticipated a law will be passed next session that will in some measure lead to the introduction of uniform regulations in these adventures. Those embarking in our home mines have it in their power easily to ascertain whether the enterprise be legitimate, or the agents, and others connected with the undertaking, are persons of probity and character. If such be not the case, they have only themselves to blame for any cajolery or misrepresentation that may be practised on them.

BRUCUTU GOLD MINING COMPANY.—Sir: I observe a query in your last Journal, as to what is doing in this company, and when a meeting is likely to be called? For the information of your correspondent, and your subscribers generally, I may state that negotiations are still pending, on the one hand, with the vendors, for an amendment of the terms of the original contract; and, on the other, with the miners, for the supply of the necessary funds to work the property, so as to render the calls upon the shareholders as light as possible. When these negotiations have reached a definite point, a meeting will be convened, and unless they result in a satisfactory arrangement, the directors will submit to the shareholders what they may then deem best for their interest, and on which it will be for them to decide what shall then be done.—J. GATLIFF, Secy.: Lime-street, Jan. 4.

"A Subcriber."—The company have not published any information for a considerable period, nor have they ever held a public meeting. The association, at one time, was in good repute, but the proceedings of the directory were so enveloped in mystery, that little was ever known of the status of the company. The shareholders should have taken some decisive steps previously; but in general they are so apathetic, they only complain of the evil when it is past remedy.

MR. ENNOR AND "MINER."—Sir: As I before stated, my remarks about Mr. Ennor were occasioned solely by his advertisement. I know nothing at all of him but through your Journal. It is mere balderdash, Mr. Hitchens's talking about my honesty, &c., when he knows not who I am: I will, however, tell him what I am. I commenced working "underground" when fifteen years of age, and have now seen more than fifty summers; during the whole time I have been a "miner," and have gone through every phase of a miner's life. I have been an agent for more than 25 years; and for a great many years past have inspected not less than fifty mines per annum. Now, I venture to assert, I have gained a trifle of experience in all this; and, I flatter myself, still retain the confidence of my employers. I regret, however, that, though I may give a tolerable opinion, I have not yet gained sufficient experience to "guarantee the result of any mining undertaking;" and, I am afraid, I have not the boldness to assert it, if I had. For the truth of what I have said about myself, I can give the best references; but as I do not seek the kind of popularity that Mr. Ennor does, shall not give my name and address here: a letter, however, sent to the address attached to this, will be safe, and shall have my attention. As this matter is becoming too personal, this is the last letter you will have from me on the subject.—MINER: Lenton Hoyle, Jan. 5.

LIGHTNING PROJECTILES.—Sir: Your observations on the matter of my means of projecting missiles of destruction will, no doubt, be questioned by some of your readers. Those who really understand the property of matter will, no doubt, appreciate the difference between water and powder. In the possession of powder you require a magazine, which frequently blows up: water is common, and produces more than double the force under my treatment.—ANDREW SMITH: *Lightning Projectile Works*, Jan. 5.

MINING LAW.—SORTRIDGE AND BEDFORD MINES.—Sir: I have purchased a large interest in this concern, and have since ascertained that it was for some years previously worked under other titles, and that a large amount of liabilities, incurred during that time, remain unsettled. I also learn that about one-half of the shares in the mine were then declared forfeited, and the remaining half, being multiplied in 12,000 shares, represents the present company. Now, what I beg to enquire is, if the new company are liable to pay the old debts? and if the owners of those shares said to be forfeited can claim them, when it suits, at a future time, and deprive us of our property?—CAUTION: Jan. 5.

Mr. Evan Hopkins has returned to London from inspecting mines in Wales; and we believe that his papers on "Mines and Mining" will be resumed in our next Journal.

THE MINING JOURNAL
Railway and Commercial Gazette.

LONDON, JANUARY 6, 1855.

In closing the past, and commencing a new year, we lament that the commercial position of the country furnishes but little matter for present congratulation. That year has witnessed a sudden and complete revulsion from a long-continued state of peace, to that of active war, bringing its train of calamities, not only home to the bosoms, but to the business of men. In the interval of nearly forty years, which had elapsed since the last hostilities in which Great Britain was engaged on the European Continent, a new generation of men had risen into being, and the progress of arts, manufactures, and trade, had advanced even far beyond the ratio of our population. Roads of iron, ships of iron, dwellings of iron for our great colonial dependencies, have been the creations of peace; and steam had, within that period, made both time and distance subservient to its power. As the capacity of production in our leading manufactures had grown with the national growth, any violent check on those extended powers must necessarily produce effects proportionately great. The more expanded our commercial relations, the more serious, on the social condition of all classes, must be the consequences of change; and it will require time, therefore, before the country can quietly settle down, and adapt itself to the altered state of circumstances in which the empire is now placed. The fiscal, naval, and military resources of the country have increased; our foreign alliance is the most favourable that Great Britain ever enjoyed in any war; gallantry unprecedented, and glory unalloyed, have hitherto attended our arms: we may fairly, therefore, anticipate ultimate success in a righteous cause, and, with that success, the natural revival, in its various channels, of public prosperity.

In taking a retrospect of the past year, so far as our humble efforts are concerned, we may boast of the same devotion to the mercantile, mining, and manufacturing interests which we have ever displayed. Our columns, as well as original papers as in communications from various quarters, have kept pace with every improvement, and furnished to the reading community a complete chronicle of the united efforts of science, industry, and art. Every mechanical and philosophical question has been fairly and impartially discussed, the best sources of information selected, and fair encouragement afforded to the spirit of enterprise, and the investigation of truth. In our efforts to sustain prudent and legitimate adventure, we have fearlessly held an even hand, exposing discreditable and fraudulent transactions, too often the incidents of trade, and submitting to public approbation every example of successful industry and judicious management. All new inventions deserving of notice, continental, American, as well as native, have been explained, and in many instances illustrated by engravings; and our Journal has presented a perfect record, as they have arisen, of all the legal adjudications of the higher tribunals on every mining, share, patent, and mechanical question. We have been unceasing in our advocacy of every measure tending to improve the educational and social system of our mining, and other operative population; and we have been equally zealous in sustaining every proposition for the amelioration of our commercial code.

The course we have pursued with approval for the past, is the best guide for the future; and we can pledge our present well-earned repute, that the MINING JOURNAL shall continue to merit the high position in public estimation which it has so worthily attained.

The sales of copper ore in Cornwall during the quarter ending 30th of December, 1854, the particulars of which we published in last week's Journal, give the following results:—

Date.	Av. stand.	Prod.	Price.	Tons ore.	Fine cop.	Amount.
Oct. 5	£144 13	5%	£5 11 6	3884	224 10	£21,792 7 0
" 12	13 7	6 3/4	6 13 6	304	343 9	33,960 12 0
" 19	143 0	6 1/2	6 2 0	4582	285 7	27,930 3 0
" 26	147 2	5%	5 18 6	3517	210 4	21,171 8 6
Nov. 2	144 14	6 1/2	6 13 0	2229	145 4	14,880 1 0
" 9	142 19	7	7 5 6	4375	308 11	32,077 16 0
" 23	141 8	6 1/2	6 18 6	4333	295 17	29,912 10 0
" 30	141 12	6 1/2	6 12 6	4095	273 0	27,400 2 0
Dec. 7	145 10	0 1/2	6 2 6	3712	225 9	22,596 17 6
" 14	142 12	6 1/2	6 17 6	4537	327 15	33,383 19 0
" 21	141 6	6 1/2	5 18 0	4098	287 7	27,690 12 0
" 28	142 17	5 1/2	5 13 6	3780	224 4	21,642 6 6
Total for the quarter			49,146	3150 17	£314,438 15 0	
For the quarter ending September, 1854		45,728	3002 6	292,185 19 6		
Ditto June, 1854		46,811	2935 3	201,860 18 6		
Ditto March, 1854		45,418	2855 5	294,353 16 6		
Total for the year 1854		187,103	11,963 11	£1,192,339 9 0		
Average per quarter		46,776	2,990 17	298,209 17 3		
Corresponding quarter, 1853		45,723	3,048 4	312,371 4 0		
Total for the year 1853		181,914	11,913 13	1,153,167 3 6		

The above result shows an increase in every respect, both in the tonnage, metal, and money, during the year just ended, as well as the respective quarters; and although the miner has no reason to complain of the price he has obtained for his produce, still the lion's share of profit has, as usual, gone into the pockets of the smelters. The price of metal with them continues the same it was at this period last year; still they have managed gradually to work down the standard by their weekly conclave movements, so that it is now 10 per cent. less than at Christmas, 1853.

The remarks we found necessary to make in the Journal of the 7th Jan., 1854, are fully borne out by subsequent results. Labour, materials, and provisions continue at an exorbitant rate. Our best miners have emigrated, leaving behind the old and almost worn out, the young and unpractical; few remain of the hardy and robust; therefore, "a man's a man for a' that." There being more work than competent men can be found to execute, the natural result is that the reduced number of hands obtain an increased price per fathom of ground, or a higher tribute upon the ore, which, added to the extra price of materials, takes away the profit from many concerns that can hardly meet their expenses, obliging others to make calls to keep afloat, and driving many to seek the auctioneer's hammer, and wind-up their affairs.

During the year 1854 numerous bubbles have burst, as we prognosticated. Many individuals concerned in them, including real holders, bears, brokers, and jobbers, have been ruined; and yet there have been other green and dubious specie created in the same period, eagerly sought after at exorbitant and unwarranted premiums. The cry once up, the public

follow, no matter which way the hounds run—through crofts or dells. The jobbers keep up the sport, until they scent some new rig, and then set about drawing off their customers to the fresh find. Again, the public follow readily, without asking "the reason why."

Once again, we entreat our readers to make a point of looking at our weekly return of metal sales, and also the statistical tables published quarterly. The two last Numbers of our Journal contained those of copper, with the name of every mine selling ore at Swansea and in Cornwall, the exact number of tons, and amount of money realized by each. Our two next Numbers will furnish similar particulars as regards tin and lead. We assure them that they will not find the names of many of the rigs upon the market in either of these metal sale lists, yet several of them are quoted as saleable at enormous rates, and not an ounce of metal extracted as yet! "Can such things be, and not call forth our special wonder?"

The present state and future prospects of the iron trade in England are matters of serious moment, and continue to attract much public attention. With increasing colonial demand for houses and sanitary purposes, with supplies necessary to meet the requirements of the war, of shipbuilding on an increasing scale, and of railways, both on the Continent, in the United States, and in Canada, we find a reduction of 17 per cent. carried at the recent meeting of the ironmasters at Wolverhampton, and a still further depression in price contemplated, and even called for by some of the leading members of that body. At that meeting, the necessity of a reduction was conceded at every side, the only question of discussion being in effect its extent. We cannot forget that, although the ironstone may in certain quarters be becoming comparatively scarce, the powers of production are daily increasing in the iron districts of Great Britain; and to this cause, amongst others, may be attributed the present decline. The

for the illustration and free discussion of those principles of trade which may be termed exclusively English, and the extension of which to foreign states, guiding them in the revision of their tariffs, would be the most certain means of stimulating the spirit of national enterprise, and extending our commercial relations. Our columns have been long and earnestly devoted to sustaining the policy of abolishing, or, at all events, reducing, restrictive duties, as well for the benefit of those who supply as of those who consume; and the advantages of that policy, in order to be generally adopted, only require to be well understood. France, long wedded to the antiquated prejudices of ages, and jealous of our great capabilities and vast capital, has seriously commenced a system of relaxation, and minor continental states must necessarily, although perhaps slowly, follow in her wake. A succession of restrictive duties levied in the several petty German principalities on British manufactured products, particularly on iron, while it interferes with our energies, prohibits, to a certain extent, the use of iron implements amongst their own inhabitants, the effects of which are fatally injurious, as well to their agricultural as social advancement. Those minor Germanic states, forming a confederation of their own, have, we perceive, indignantly rejected a proposition from the Prussian Government that Prussia should be the representative of Northern Germany at the approaching Great Exhibition in Paris, and have wisely determined severally to appear by their own deputies. The occasion is, therefore, highly favourable for impressing upon the representatives of every European state, when assembled for the advancement of industrial and commercial objects, the false policy of restrictive and prohibitory laws, and for teaching them to inculcate, on their return to their various localities, the more sound and more philosophic doctrines of free trade, now so universally acknowledged by every class in this country, and so boldly maintained in the Congress of the United States.

The proceedings of the CAE-GYNON MINING COMPANY, reported in another column, exhibit a melancholy instance of mismanagement. Let us look at a few of the facts. At the meeting in September, the account showed a balance of 217*l.* in favour of the mine; but in reality there was a balance against it—credit having been taken for 240*l.* for 20 tons of ore not sold, and which turned out to be 15 tons 15 cwt., producing 160*l.* only, and sold at 11*l.*, instead of 12*l.* per ton, as estimated. This, to say the least, shows gross miscalculation. We find, moreover, that a dividend was promised at the next meeting; but so far from making profits, the mine is actually 190*l.* in debt. Upon the representations of Capt. A. FRANCIS, shareholders were induced to increase their interest in the concern; and others, who were not shareholders previous to the meeting in Sept., to become large purchasers of shares; although it would appear that Capt. FRANCIS is not very seriously implicated—it being admitted by those who had inspected the property that it was equally as good, and even better, than he had reported. His absence, however, was the subject of remark, and was looked upon with some suspicion. The more serious part of the business was the alleged negligence of the purser in allowing the works to be stopped without calling the shareholders together to explain the cause, or even intimating that they were not in operation. Such laxity of duty appears to us incomprehensible, and merits the severest censure. If there were no funds, his first step should have been to apprise the shareholders of their position, and not have allowed their credit to be canvassed, and their property to lie neglected for a period of two months; nor was such conduct either just or generous towards the honest and industrious artisan, whose hands were stopped, and whose earnings were suffered to remain unpaid. It is hardly possible to conceive anything more unwarrantable, or unfeeling, than to have allowed such a state of things to exist when the remedy was at hand to prevent it. Not only have the shareholders sustained considerable loss by the extraordinary conduct which has been pursued, but some of them have been threatened with County Court proceedings. It was time, therefore, that they looked to their own interest. This they have set about in earnest; and we sincerely hope, for the sake of the mining interest generally, that the example which has been set will have a salutary effect. A competent committee of management has been appointed; and it is some satisfaction to find that the shareholders may now venture to look forward for that success which they were long since led to believe would be speedily achieved.

A very important judgment was delivered by the Lords Justices of Appeal in Equity on the 18th of November, in the case of GIBSON v. GOLDSMITH. It arose upon an appeal from a decree of the Master of the Rolls, whose decree was materially varied, and a point of some novelty and interest settled by the adjudication. Before the month of October, 1851, the plaintiffs, THOMAS CUMMINGS GIBSON, and the defendants, EDMOND ELSDEN GOLDSMITH, JOHN GRAFTON, and others, traded in co-partnership under the firm of GRAFTON, GOLDSMITH, and Company, of Threadneedle-street, London, and were possessed, amongst other similar property, of 50 shares, of 30*l.* each, in a foreign gas company, called the "COMPAGNIE D'ECLAIRAGE D'ESCHEVEILER." At this time an arrangement was entered into between the partners, that GOLDSMITH should retire from the firm, assigning his interest in the partnership property to GIBSON and GRAFTON—receiving from them an indemnity against the liabilities of the firm, and an account of other partnership transactions carried on with them and others under different denominations. A deed, dated the 3d of October in that year, was executed by all the parties to carry out this agreement, containing, amongst other things, covenants to indemnify, and also for further assurance, on the effect of which covenants the question in the case mainly turned.

When the deed was executed, the shares in the Escheveiler Company were registered in the books of the company at Paris in the name of GOLDSMITH alone; but the certificates, which were also in his name, were on that occasion endorsed by him, and handed over to GIBSON and GRAFTON. It was subsequently ascertained that the shares could not be completely assigned without a transfer in the register of the company, which could only be effected by GOLDSMITH, or by a written authority from him—the plaintiff having by purchase from GRAFTON of his interest become the sole person entitled to those shares and the other property assigned by the deed. The plaintiff accordingly required the defendant, pursuant to his covenant, for further assurance to complete the title to the shares by the necessary transfer in the books of the company. This the defendant having refused to do, the present suit was instituted, to compel performance of that covenant, and that the defendant might be decreed to execute the necessary authority for transferring the shares into the plaintiff's name. The bill also prayed an account of any dividends on the shares received by the defendant, and an account of the losses sustained by the plaintiff by reason of the defendant's refusal to complete the transfer, arising from the fall in the price of the market shares, or otherwise, and that the defendant might be decreed to pay what should be found due on that account.

The case made by the defendant for resisting the relief prayed was as follows:—The original firm, it was alleged, had been lessees of a Dutch gas company, called the Leuwarden Gas Company, and were liable as such to creditors of that company upon certain coupons; and the defendant insisted that this was one of the liabilities against which GIBSON and GRAFTON had contracted to indemnify him. It further appeared that the defendant had been obliged to pay, or allow on account, 220*l.* for some of those coupons; while the plaintiff disputed the fact that the lease had ever been the partnership property. On the hearing of the case before the Master of the Rolls, he decreed that the plaintiff was not entitled to have the defendant's covenant specifically performed without previously performing his own covenant for the indemnity of the defendant. An account was accordingly directed of what had been paid by the defendant in respect of the liabilities of the original firm; and upon payment of that sum, and the costs of the suit by the plaintiff, the defendant was decreed to complete the transfer of the shares.

From this decree the plaintiff appealed; and the Lords Justices in delivering judgment observed that the Master of the Rolls had proceeded on the rule—a rule in the application of which many learned persons had been mistaken, that he who comes into equity must do equity. The rule was in itself very good, but extremely difficult to apply; for if it could be employed in all cases, there would never have been any necessity for cross bills, except for the purposes of discovery. The contention on the part of the defendant was that the plaintiff had broken his covenant contained in the same instrument, and that this breach must be cured before the covenant of the defendant could be enforced by the plaintiff. Such a breach, if it has happened, was no bar to the plaintiff's right to be placed in the position intended by the deed. The true meaning of the rule intended to prevent multiplicity of suits—that he who seeks equity must do equity—was, that those who seek the assistance of this Court must do justice as to the matters in which the relief in question is sought. The unity of subject necessary to the application of the rule was wanted in

this case; and if the complete transfer of the shares were in this instance delayed until satisfaction of the present liabilities under the indemnity covenant, it might be still further delayed from time to time by further liabilities occurring. The two covenants were distinct and separable, and the consequence, therefore, was that the defendant must be left to sue independently upon his covenant for indemnity, and could not be permitted to set off the plaintiff's liability upon the alleged breach of a distinct and different covenant against his claim in the present suit. The Court of Appeal accordingly declared that the decree in the Court below cannot be sustained—that it must be varied by directing performance of the covenant for further assurance. A proper instrument must be prepared at the plaintiff's expense for transferring the shares in the company's books to be executed by the defendant (GOLDSMITH), who must enable the plaintiff to receive past dividends, if any such have accrued; and the defendant to pay back any he may have received since the date of the deed. A discussion as to the costs of the suit then arose, but was terminated by an agreement between the parties that the plaintiff should pay into Court the sum of 220*l.*, claimed by the defendant as due on the covenant to indemnify—that an enquiry should take place whether any and what sum was really due on that covenant, and that the costs should abide the result of that enquiry.

The adjourned meeting of the TAMAR SILVER-LEAD MINING COMPANY was held on Tuesday, for the purpose of receiving the answer to the report of the committee of investigation, appointed at a general meeting of the 2d of October—the particulars of that report appeared in our Journal of 23d of Dec. From the fortunate circumstance of Mr. G. B. CARE, one of the directors, being present, and consenting to take the chair, we are spared the pain of reporting scenes disgraceful to any body of men in the City of London. The calm, dignified, and impartial manner in which he conducted the proceedings will be duly estimated by all present. Before alluding to the reply of the directors, we will make one or two observations as to our publication of an abstract of the report of the committee. The directors charge the members of the committee with furnishing us with a copy, which was not the fact; as our reporter applied to them for a rough proof, which was refused; but the following week this report was printed, and freely circulated—indeed, any party presenting a scrip could obtain one; and no gentleman knows better than Mr. STAINSBY that it would be certain to be sent to us. In publishing an abstract, we were most careful in selecting every portion of it favourable to the directors, and we really cannot see what possible injury could have arisen to those gentlemen.

With regard to the reply, we have published that *in extenso*, with the exception of the tabular part of it, to which we have made sufficient reference that the whole statement may be fairly understood. The committee contended that it was no answer, being merely contradictions; but as the whole matter is now before the public, we must leave them to draw their own conclusions. Respecting the ore bills, not one word is said. As to the reserve fund, the charge against the directors is unanswered; and it is merely necessary to refer to the fact, that the committee were informed the reason of its not being invested was because it did not amount to 3000*l.*, when, in truth, upon examination of the books, 1605*l.* 15*s.* 1*d.* had been invested, and was sold out at a loss of 178*l.* 9*s.* 7*d.* After such evidence the shareholders must judge upon which side the charge of subterfuge rests. Another circumstance occurred, which, at the present time, shows, to speak in the mildest terms, very bad taste,—we allude to the election of a director on the 28th of Dec. last, and that election taking place without even giving notice to the other directors. It is not surprising that, after such conduct, a vote of want of confidence should almost unanimously be carried by, perhaps, one of the largest meetings of shareholders ever held, and the directors requested to resign; but, notwithstanding Mr. BETTELEY stated "that he only consented to remain upon the solemn assurance given to him on Saturday last that discrepancies of a like kind should not occur again," two or three of them positively refuse to accede to the wish of the shareholders, who are now compelled, under the deed of the company, to demand that it shall be wound-up in the Court of Chancery. The chairmen, at the conclusion of the proceedings, truly observed that, with such a difference of opinion between shareholders and directors, no company could ever prosper.

This is another instance of the necessity of the Legislature amending the law of partnership in mining adventure, and placing it under some uniform system; for it cannot be supposed that parties would invest their money in undertakings similar to the Tamar Silver-Lead Mining Company, where their voice is totally disregarded, and the only alternative left, when dissatisfied with the management, is to wind-up their affairs in a Court of Equity.

NEW MINERAL DISTRICT IN THE WEST OF ENGLAND.—Some very large veins of the spathic iron ore of Sweden and Russia, and containing from 60 to 67 per cent. of metallic iron, have been discovered within the last three years in the Brendon hills, which commence about twelve miles to the west of Taunton. Leases of these mines have been taken by the Ebbw Vale Company, who, after assuring themselves of their value and extent, have commenced a railway to them. The merit of these discoveries is in great part due to H.R.H. Prince Albert, as their value was first ascertained from specimens of ores brought by foreign ironmasters to the Great Exhibition of 1851. The outcrop of these veins was worked by the Romans along the whole seat of the Ebbw Vale Company, and likewise through the Exmoor hills. An enormous bed of ironstone, more than 300 feet in width, has also been discovered within the last two or three months in the same district. This mineral contains about 34 per cent. of iron, and in appearance much resembles the common Welsh ironstone; there is, however, a wonderful difference in the size of the beds, and while an expensive mine has to be driven to get out two thin veins of the latter, the new beds contain many hundred such veins, lying side by side, like pieces of toast in a rack, and interlaid with soft shale of from 4 to 8 in. thick. Millions of tons of this mineral can be obtained by open quarrying, without driving a level, sinking a shaft, or employing a miner. This ironstone is being largely opened by a Staffordshire ironmaster, near Combartin, but it appears to be strongest in the Forest of Exmoor, running in a continuous line for more than three miles over one estate, on that range of hills. It is to be hoped that these discoveries, separated only by the Bristol Channel from the great Welsh coal-fields, will tend, when brought to bear, to check the growing scarcity of ironstone, which has for the last few years caused so much disquietude in the trade.

REDUCTION OF LEAD ORES.—Mr. W. Cookson, of Newcastle-on-Tyne, has patented an invention, which has for its object the separation of the sulphur from the ore in such a manner that the desulphurising agent may be used over and over again; and the sulphur that has been separated from the ore thereby may be economised and used in the production of articles of commerce. This object is effected by operating upon the lead ore in the presence of metallic iron or oxide of iron, which will thus be made to combine with the sulphur, which becomes separated from the lead ore in the process of reduction.

In carrying out this invention, lead ore and metallic iron are first mixed together, and a small quantity of alkali or neutral salt and carbonaceous matter are added thereto. The mixture is then to be subjected to heat in a furnace or in a crucible, or other suitable receptacle. By this means the lead ore will be reduced to a metallic state, and the iron, by uniting with the liberated sulphur, will form sulphur of iron, which, when exposed to a damp atmosphere, will fall into powder. To this sulphur of iron in powder sufficient water is added to make it into a thick paste, which may then be worked up and moulded into small pieces by machinery or otherwise. These moulded pieces must be dried at a moderate heat, and then they may be burned as pyrites, or an ordinary kiln used for the manufacture of sulphuric acid; or the sulphur of iron in a powdered state may be burned or roasted in a suitable furnace for a similar purpose. This burning or roasting operation will reduce the sulphur of iron to an oxide of iron containing some sulphur, lead, and salts. The oxide of iron is then to be crushed and mixed with carbonaceous matter; after which it may be again used as before described in the reduction of a fresh quantity of lead ore, instead of employing fresh metallic iron. By conducting the process with ordinary care and caution, a greater yield of lead may be obtained than by the ordinary reducing process. This result is considered to be due to the presence of lead in the oxide of iron, which has been used for previous operations. Instead of using iron in the metallic state in the first instance, burnt iron pyrites or gossan may be profitably employed as the desulphurising agent. The patentee claims the use and application of metallic iron, or oxide of iron, or calcined iron pyrites, in the process of smelting or reducing lead ore; whereby the sulphur contained in the ore, by being caused to combine with the iron, will be saved so that it may be used in the arts; the iron, or oxide of iron, being by the subsequent separation of the sulphur therefrom, reduced to a state to be again employed in reducing fresh lead ore.

THE IRON AND METAL TRADES OF SOUTH STAFFORDSHIRE.

[FROM OUR CORRESPONDENT IN BIRMINGHAM.]

JAN. 4.—Stock-taking, merry-making, and railway excursions have, during the past week, superseded the ordinary commercial and manufacturing transactions of this town and district, and necessarily reduce trade reports to very limited dimensions. "Our own correspondents" and local editors have well nigh exhausted the subject of the iron trade, to which little more can be added this week. The trade is certainly in a state of abeyance; and it is very doubtful whether the resolution of yesterday (Wednesday), at Wolverhampton, reducing the price 20*s.* per ton, will be adhered to at the approaching quarterly meetings, or give way to one declaratory of a still further reduction of 20*s.* There is, evidently, a strong growing opinion amongst some of the largest makers that a further reduction is necessary, as well to protect themselves against under-selling, as meet the reduction which has recently taken place to a considerable extent in the Welsh and Scotch markets. That a reduction of 40*s.* in place of 20*s.* would be more in accordance with the present demand is generally admitted, but the labour market, as I have before observed, constitutes the difficulty. With the present scarcity, and consequent high price of ironstone, the rate at which pigs sell, and wages so high, it will be a profitless trade at 40*s.* reduction; and yet, eventually, it must come to that reduction, unless some new and unforeseen market shall present themselves. Every arrival from America only confirms the fears which have for some time past been entertained here, that there is very little to hope for from that quarter until after the next harvest. This is certainly a long time to look forward to; but, all things taken into account, it is to be feared there is too much reason to believe that nothing short of at least a good average crop throughout the States will restore that sound and healthy state of trade for which we have been accustomed to draw such ample orders for every description of iron and manufactured goods. The continental lines, projected two years ago, have been abandoned, *pro tem.*, and unless for the purposes of the war, few consignments are now taking place. Under these circumstances, the meeting of Thursday next, in this town, is looked forward to with increased interest. Meetings at Walsall and Wolverhampton will be held two days previously, but it is generally expected that the meeting here will finally settle the quotations. It is needless to say, that the suspense relative to the issue of the expedition in the Crimea has now become intense, and as such serious interests are involved in the result of the assault which it is considered here to-day, from the announcement in the *Times*, must, in all probability, have taken place ere this, speculation in trade may be said to have been suspended in this district. Add to this the announcement here of a heavy embarrassment in the iron trade in London, which is likely to affect some houses in this as well as other mining districts, and it is not giving too gloomy a picture of our new year's prospects, to say they contrast most unfavourably with those under which we entered in 1854.

In the Metal Trades, there is no change to report, and none is likely to take place until the great event of the day shall decide the prospects of the manufacturing interests, by which the prices of raw material must be governed. From the manufacturing departments of this district, for the reasons given above, the returns are *nil*, with the exception of those for the works employed in preparing naval and military stores and ammunition, which, taken in connection with those said to be in course of manufacture in Manchester, London, and other towns, give very little hope of an early peace.

The amalgamation between the London and North-Western Railway Companies, referred to in my last letter, for the advancement of the rates of the carriage of goods and passengers on certain lines, came into operation on Monday last, and was attended with no small disappointment to a great number of excursionists, who, not having previously had access to the official announcements of the proposed change, were unprepared for it, and much disappointment was experienced, particularly by those heretofore accustomed to travel through the Shrewsbury district at nominal charges. The limitation of the third-class trains is much complained of, and likely to give rise to many a sour newspaper paragraph, or angry letter.

IRON AND COAL TRADES OF YORKSHIRE AND DERBYSHIRE.

[FROM OUR CORRESPONDENT IN CHESTERFIELD.]

JAN. 5.—There is no change to report this week in the position of the iron trade, the most important feature being a continuance of the same dullness we had to remark last week, with little increase in business operations to what was expected from the reductions agreed to at the meeting of the trade at Wolverhampton. Where it not for the execution of orders of long standing, and for the increase which most railway companies are making to their rolling stock, which on all the leading lines is totally inadequate for the traffic, we should have but little employment for our mills and forges. The casting trade is generally good, having received a great impulse from the contracts entered into with the Government. The engagement with Messrs. Bolckow and Vaughan, in the North Riding of Yorkshire, for the supply of 100 tons of shot per week for 12 months, being small compared with the Low Moor Company's contracts for war stores, is causing much activity in the trade in that part of the country. The majority of the orders which have been given out since the meeting of ironmasters last week have been accompanied with a stipulation for immediate delivery, from which it may be inferred that consumers had held back as long as they could. There is now manifest amongst the men a greater disposition to work than there was some time ago. The present season of the year is mostly devoted to general holiday in the works; and from the peculiar position of the trade, masters have shown little anxiety to commence work, preferring to employ the time in executing any repairs which may be required; whilst the men, who 12 months ago, resisted every entreaty to continue steadily at work, are now, that the opportunity is past, very anxious to make full time. The less excited aspect of the trade is hailed with satisfaction by buyers, who have become heartily disgusted with the state of business, the perverse conduct of the men having led to constant disappointment in the execution of orders, and to continued annoyance and mortification. The Scotch pig-iron market has undergone another relapse, although the price to which Scotch brands have receded is not below the prices which ruled a month since. Derbyshire pig-iron is always affected to some extent by the Scotch market, as they come into competition with them throughout the Yorkshire district.

The Coal Trade is prosecuted very vigorously in the West Riding. The alliance between the South Yorkshire and Midland Railways, which took effect on Monday last, appears likely to be productive of very good results to both companies, as it will break through the monopoly of the Great Northern. The London and North-Western terminus will, no doubt, become the greatest coal depot in London, being supplied from the Yorkshire, Derbyshire, Lancashire, and Leicestershire coal-fields; and if need be, drawing its supplies from Durham and Northumberland; with the same facilities as the Great Northern; though, probably, not on such advantageous terms in a pecuniary point of view. The junction of the Blackburn Valley Branch of the South Yorkshire will enable the Midland to carry coal from the Thorncleiff and Chapelton coal-fields, which were not available by the Great Northern. We have repeatedly expressed an opinion that the largely increased and increasing supplies of coal which were being made in all the principal coal-fields, would ultimately affect the price of that article in the London markets, to prevent a recurrence of the disastrous and ruinous prices which prevailed in the winter season of last year. Admitting that the depression of trade may have lessened the demand, there is ample evidence of the fact that the price of coals is now much lower in London than at this time last winter, with a great probability of a further reduction, by the competition between the different railway companies who have their termini in London.

There is no diminution of activity in the Derbyshire lead mining districts; and neither good or bad war news seems to affect the enterprise of adventurers, as is the case with most other branches of commerce. The mines appear to be progressing very satisfactorily; and from the increase which has latterly taken place in the number of miners, there is a difficulty in erecting them suitable cottages as fast as they are required. This is particularly the case in the coal mining districts.

Notwithstanding the depressed condition of commerce generally, there are circumstances which may induce a better feeling of confidence in business transactions.

The loan which the Emperor of the French asked for has been favourably received, both in England and France; we are assured, too, that the

financial position of this quarter's revenue is perfectly satisfactory; and although the sanitary condition of our troops is anything but gratifying, gigantic exertions are now being made, though late we must admit. The Mining and Railway Stock and Share Markets have been somewhat inactive, but prices have been steady.

THE ELECTRIC LIGHT.

We witnessed on Thursday evening, at the works now in progress for sinking the foundation of New Westminster Bridge, the practical application of the electric light, under the new patent of Dr. Watson, of the Electric Power, Light, and Colour Company. The scene where the light was evolved was on the Surrey side of the bridge, and the glare was thrown over the water, in which machinery was in active operation driving piles. The apparatus containing the galvanic battery and the concentrated light was on the land, at a distance of between 70 and 80 feet from the stage where the workmen stood, and the light was produced from a continuous electrical current acting upon carbon. The effect produced was very striking; the stage was illuminated so clearly as to enable the workmen to proceed with their duties as completely as if it had been daylight. The luminous appearance on the stage was pale, resembling very perfect and bright moonlight; and the quantity of light afforded by one burner and reflector was ascertained by the photometer to be equal to 72 ordinary Argent gas burners, or nearly 1000 wax-candles. Chappui's reflector was used on the occasion, and a great improvement seems to have been effected in enabling the burner itself to keep up a constant supply of the material required. Great mechanical ingenuity has been exhibited in rendering the apparatus capable of feeding itself with the carbon; but still the light was in some respects flickering, for as the material was decomposed the fresh supply filled its place. This appearance will be probably remedied by future improvement, which is alone required to render this system of electric light one of the triumphs of modern art.

A similar system of night illumination has been recently adopted with success at the great public works now in progress in Paris. The carbon used in the present process is a preparation of the substance formed by the distillation of coal which adheres to the interior of gas retorts, and its capacity of producing intense light is perfect. The process seemed easily manageable, quite as much as gas, to extinguish it or turn it on, being merely the work of an instant. The material from which the light is obtained is by the very operation converted into the pigments which the company employ. The production of the colours is their main object, and as colours, unrivaled in brilliancy and beauty, are produced by the process, the obtaining of the light is merely secondary, and it costs absolutely nothing. With these advantages, this brilliant method of night illumination is destined to be very generally adopted.

The Government authorities connected with the erection of the new bridge have made arrangements for employing this novel and valuable agency in its erection, and it is in contemplation to place the electric light on both banks of the river, and also on the crown of the central arch, as the works proceed. The patentee has, we learn, contracted to light Chelsea Bridge; and the Emperor of the French has granted permission to erect one of the brilliant illuminators for the purpose of lighting the grand avenue of the Champs Elysées, during the approaching Great Exhibition at Paris. The company are enabled to supply this beautiful and vivid light at the lowest cost of gas, in consequence of the profits derived from the mode of utilising the residuary products in the manufacture of colours.

COAL AND IRON IN ANDALUSIA.

In our Journal of the 15th of Oct., 1853, we published an interesting account of the extensive coal-field, called "La Terrible," situated at Belmez, near Cordova. We promised to return to the subject, and now that the Spanish Legislature is about to decree the construction of several important lines of railways, we redeem that promise by presenting our readers with the following description of the LOS SANTOS COAL AND IRON FIELDS, condensed from a report of the eminent French civil engineers, M. A. Paillette and Ph. Paret.

The property consists of three coal concessions—1st. La Terrible; 2d. La San Juan; 3d. La San Rafael, and one concession of ironstone, La Filipina. The coal mines are situated on elevated ground, in the district of Belmez, and province of Cordova, in Spain, about 20 miles to the north-west of the town of that name. The projected railroad from Madrid to Cordova and Malaga, *via* Ciudad Real and Almaden, will pass close to these concessions, but a tramway might bring down coal to Cordova on an inclined plane with easy traction. La Terrible and San Juan Collieries are, we are assured, now at full work, and the quality of the Terrible coal resembles that of Newcastle, being suited for coke, steamers' fuel, and gas. The seam now in course of being worked is stated to be upwards of 44 yards thick, and close to the surface, while the high elevation renders it altogether free from water: 50 per cent. of coke is obtained from it by the rudest methods of manufacture, while ovens are said to yield from 65 to 70 per cent. The present price of coal at the pit's mouth is 2s. per ton, and coke, which costs about 6s. 6d. per ton, brings at Madrid the enormous price of from 5l. 10s. to 6l. The principal consumer, Mr. Perez Lozano, of the London firm of Pinto, Perez, and Co., who annually takes 2000 tons for his smelting-works in the vicinity, and would require much more. The average cost of carriage by mules to Cordova is 3s. francs, 17. 8s. 6d. per ton, so that the ton of coals costs there 2l. 10s. 6d.

La San Juan coal-field is situated near that of La Terrible, but the coal of the former is inferior to that of the latter, not being adapted for coke or gas, but well suited for the furnace. The third concession, that of San Rafael, has not yet been worked, but the concessions together offer an exhaustible supply of fuel, and must prove of inestimable value to the iron-works.

The Filipina concession of ironstone is very extensive, and is situated near Berraza, in the commune of Villa Nueva del Rey, province of Cordova, at a distance of about seven miles and a half from the coal-fields. The bed of ironstone lies on the surface, and is 8½ feet deep, and has yielded, on repeated experiments, 65 to 70 per cent. of iron. Carbonated ironstone also abounds, and with an earth containing from 10 to 12 per cent. of iron, will be found useful for reducing the stronger ore. It is proposed to erect the iron-works near a lake formed by the River Guadiato, in the immediate vicinity of the bed of coal and ironstone, the distance being about 60 leagues from Madrid, which city now draws its supplies of iron from various parts of the Peninsula. La Mancha, Estremadura, and Andalusia are supplied principally by the works of Pedroso and Malaga. The former use the coal of La Terrible, when they can procure it; but it at present stands them in upwards of 3l. per ton, while the Malaga works employ English coal, which costs from 2l. to 2l. 10s. per ton, and sometimes even a higher price.

After having examined the mines of Los Santos, and thoroughly investigated the subject in December, 1853, Mr. Perez Lozano, of London, reported "that from the contiguity of the coal and iron, the proposed new works at Belmez might undersell the Malaga and Pedroso Iron-works, and supply the interior of Spain with every sort of iron at half the present selling price." The interior of Spain is but little known, and we are literally greater strangers to the extent of its mineral resources than we are to those of Siberia. We, therefore, take a deep interest in directing the attention of our readers to the internal wealth of the Spanish kingdom, with the extended lines of sea-coast, and rich and populous cities; and we feel a deep conviction that the several lines of railways decreed by the Government will, before long, be the means of opening an immense market for the iron, coal, and coke of Belmez. Three great lines are determined on—1st. That from Madrid to Malaga, by Cordova; 2d. That from Seville to Cordova and Linares, which has been contracted for by Messrs. Peto, Brassey, and Co., and is now in the course of being constructed; 3d. That from Ciudad Real to the frontiers of Portugal. As soon as the railroad from Cordova to Seville is completed, or that from Cordova to Malaga, the increasing consumption of coal and coke in the Mediterranean must impart additional importance to those resources; and there seems no reason to doubt but that the numerous steamers plying in those extensive waters must draw supplies of fuel from the coal-fields of Los Santos.

LOCOMOTIVE STEAM-ENGINES.—Messrs. Molinos and Pronnier, of Paris, in their improved locomotive, provide the fire-box with a hollow bridge, which stands up from the inner end of the fire-bars to near the top of the box, and is intended to turn the flame upwards, and cause it to meet a stream of air, which enters the fire-box through pipes which pass through the boiler, for the purpose of consuming the smoke before it reaches the tubular flues. They also propose to raise the top of the fire-box above the level of the cylindrical portion of the boiler, and to place the steam chamber above the fire-box, for the purpose of increasing the number of tubes.

PEAT, AS A SMELTING FUEL.

In our last Journal, we inserted a communication from a correspondent, condemning, or, at least, throwing doubts upon, the patented process of Messrs. Gwynne and Co. for the reduction of ores, &c.; and, in justice to those gentlemen, we have given insertion, in another column, to a letter from them, in reply, and to which we direct the attention of our readers.

It appears to us that our correspondent reasons upon insufficient data: he admits that the process of smelting ores is, doubtless, correct in theory; and as he appears to have been entirely ignorant of what those gentlemen have already effected in the desiccation and condensation of peat, although we have on several occasions made our readers aware of the progress made; and in feeling the deep importance of the subject, not only to Great Britain but to Ireland, we again recur to the subject.

In 1846, *The Practical Mechanic and Engineer's Magazine* reviewed two pamphlets, "On the Artificial Preparation of Turf," by Robert Mallet, Esq., C.E., and "Peat Coal v. Pit Coal," by R. M. Allway, Esq.; from that review we shall make a few extracts:—Mr. Mallet states that "Attempts have been made at various times, by different experimenters, to compress the wet turf in moulds, after the fashion of brick-making. Lord Willoughby, who has devoted a good deal of attention to experiments of this nature, erected an expensive apparatus for this purpose, but entirely failed in producing a fuel which may be said to be even so good or economical as pit coal. The great bar to the success of schemes for compressing the turf is the want of a method of getting rid of the water contained in it, without at the same time using a great portion of the solid material along with it."

The editor states that Mr. Mallet's proposition for converting the turf into a cheap and excellent fuel seems to be the only feasible one yet promulgated. "It consists merely in rapidly drying the turf in heated kilns, or ovens, so as to produce a substantial solid fuel, more nearly allied to pit coal than to the spongy substance at present burnt as turf."

Mr. Mallet states that "Turf, as usually prepared in this country in the most favourable weather, though feeling quite dry to the touch, contains still from one-fourth to one-third of its weight of water; but in the winter, this water remaining in the turf, is often frozen when the sods are thrown into the furnace, or fire; in this case, the loss is enormously greater than before, for its whole supply of latent heat has to be given to the ice before it can become water; and thus for every pound of ice concealed in the turf, as much of the latter is inevitably wasted in merely thawing it as would be sufficient to heat an equal weight of water, 140° Fahr., or nearly from freezing to boiling, after which, an equal weight of turf is to be consumed in driving it off in the state of steam." Mr. Mallet also states one fact very condemnatory of even his own system; he says that "Kiln-dried turf is highly hygroscopic, and has a strong tendency to re-absorb moisture from the atmosphere, consequently it becomes necessary to use it as early as may be after its preparation."

After the statements of Mr. Mallet, it does appear to us very extraordinary that notwithstanding all that he has said about peat, he states:—"The City of Dublin Company's steamers on the Shannon have been partially worked with turf for some time;" and also that "turf prepared in the ordinary manner is also used in some of the districts of Ireland for working stationary engines; in one of the largest of these (35-horse power) the consumption varied from 55 lbs. to 80 lbs. of turf to the cubic foot of water evaporating into steam of about 7° pressure above the atmosphere, at which rate of consumption, coal at 10s. per ton would have been quite as cheap;" thus proving, beyond all doubt, that unless some more improved system of manufacture is introduced, turf can never be successfully substituted for coal. The average cost of turf in Ireland may be stated at from 5d. to 7d. per box of 20 cubic feet, almost the whole of which cost consists in labour spent in manufacturing it. In conclusion, he informs us, "I have thus brought down the history of the preparation of peat, or turf, nearly to the present day, with the view of affording a future index to persons interested in this subject, the literature of which is very little known, and more particularly for the purpose of indicating that the two great specifics for the improved use of turf, which have formed the staple of almost all recent inventors and writers upon the subject, are neither recommended by novelty or by any past success."

The editor of *The Mechanic's Journal*, in summing up, says—"that the observations made by the author of 'Peat Coal v. Pit Coal' are much to the same purpose as those of Mr. Mallet." He says—"Geologists are universally agreed that 'bog,' or peat moss is, in its component parts, the same as coal, differing only in the greater age and greater condensation of the latter; coal having been one of the earliest deposits on the earth's surface, and bog perhaps the latest. If, therefore, bog only requires a proper degree of condensation and desiccation to bring it to the 'form and fashion of coal,' I think it is not too much presumption to say that it may be accomplished by proper machinery; and if so, what a magnificent store of fuel is there not in Ireland? Perhaps it may have been the will of Providence that it should lie in obscurity until now, when it will be required, regarded, hitherto, by the ignorant as a reproach to this country, in place of being as it may yet prove, a store of wealth and comfort."

The editor concludes with—"All the attempts hitherto made to produce a species of coal by mechanical means have most pointedly failed; yet we have, in common with Mr. Allway, very little doubt but that we shall one day be able to manufacture, if not coal as at present dug from the bowels of the earth, at least a fuel equally useful for all the purposes to which the former is at present applied." And now we ask, have the anticipations of those gentlemen been realised? We fearlessly and decidedly state that they have been more than realised, and we only ask those who doubt to call and see specimens of peat fuel, as we have a mass of facts at hand to prove the superiority of the peat fuel over coal fuel; but we will add a few extracts from the evidence given by Jasper W. Rogers, C.E., founder and patentee of the Irish Amelioration Society, before the Committee of Employment of the Board of Irish Manufactures:—

Have you any objection to describe the process of compressing the bog peat to this consistency?—None in the world. According to my patent, the process commences by cutting drains in terraces or steps from the surface of the bog to the substratum, which opens a great area for the exit of the water, and, of course, the settlement and consolidation of the peat. In the course of ten or twelve months, the bog, thus treated becomes drained to an extent scarcely to be believed. It compresses itself by the force of its own gravity. I know it to have subsided 10 or 12 feet in the course of nine months. We can then cut it out in a dry or compressed turf; and, for the same labour and time, we may get, perhaps, double the quantity of turf. It is to be used for smelting iron, or for locomotives, or such special purposes, it should be passed through this compressing machine. Those prepared according to my patent are levered up by any convenient power. The piece to be pressed is placed in a moulding formed with perforated bottoms, through which the water is not pressed out, but drawn out by means of an air-pump. At the instant compressing commences, a vacuum is produced beneath, the aqueous matter rushes to the vacuum, and the turf comes out hard, close, and heavy.

Have you made any experiments as to its relative cost and power compared with coal in working steam engines?—Yes; I made special experiments at the request of the President of the French Republic with compressed peat, similar to the specimen now on the table, in a locomotive on the Paris and Lyons Railway. We had two days of comparative trial, with coal, coke, and peat fuel (not peat charcoal). My peat fuel got up steam in half an hour. The coal fuel took nearly two hours. We ran a distance of 16 miles, from Paris to a gravel pit, the gradient into which is one in 50 feet, from whence we took a load of 136 tons, and a distance of about 80 miles (English statute) further, when, in consequence of intensity of the heat and blaze given from the peat, the rigging or covering of the boiler was set on fire, and we were obliged to stop to put out the fire with water. The blaze was so great as to extend above the top of the funnel, which was red hot; and in this peculiarity of heat lies its singular advantages as a fuel for such purposes.—At our starting to return to Paris, the pressure was only four atmospheres, the boiler having been cooled down by extinguishing the fire. On our arrival in Paris, we found the pressure was six and a quarter atmospheres, and our speed was then 38 miles an hour. At every instant the pressure increased the whole way on our return.

With the turf or peat fuel every part of the surface of the boiler is enveloped in a blaze or flaming gas, which from turf is more diffusive than from coal. And the blaze from the condensed peat is also more powerful and vivid than from the ordinary turf, because it is totally void of aqueous matter. The French engineers (two commissioners specially appointed for the purpose) determined on making the experiment to ascertain how soon they could, with the peat, get up the steam. In the course of eight minutes and a half the pressure was raised from 5½ to 8 atmospheres, when it was considered dangerous to raise it higher, fearing an explosion. In fact, even to that extent would not have been permitted with the usual boilers in France, but the steam got up before it was at all expected by their engineers. But I stood with my hand on the valve lever, and let go the instant the pressure rose to the maximum point (8 atmospheres). This I believe a highly dangerous one.

Please inform us what were the comparative weights of coal, coke, and peat fuel required to produce the same given results on the boiler.—The weight of peat fuel, as against coal coke, was about 2 to 1 nearly; but 2 lbs. weight of peat fuel, properly prepared for locomotives, contains, in my opinion, more effective calorific than 1 lb. of the coal coke usually used.

What then, was the advantage gained by using the peat fuel?—I am satisfied that peat fuel for locomotives, and such special purposes, may be prepared and sold with sufficient profit generally, in Ireland, at 10s. per ton, whilst the average of coal coke may, I believe, be taken at 4s. Hence 20s. worth will do the work of 4s. worth, and it is clear to me, from experience, that the valves will last much longer with peat fuel than coal coke.

Did you make any other experiments in France?—Yes; we had a trial the next day in the same place, and under similar circumstances exactly, with coal coke. As we proceeded out and home the steam gradually went down; and, approaching the end of the journey, the pressure was barely four atmospheres. We returned to Paris

under the same circumstances as those of the preceding day, the average being only 3½ atmospheres; whilst the day previous, with Irish bog peat, it was 6½ atmospheric steady, and the speed 38 miles an hour. There were two French engineers, together with the chief engineer of the Paris and Lyons Railway, appointed as a commission by order of the President of the Republic, and I shall transmit to you a table of the comparative results of the trials.

Overman, in his celebrated work, *On the Manufacture of Iron*, gives an analysis of relative value of fuel, which he states to be of European origin, and as they have been mostly drawn up by Berthier, they may be relied upon as correct. From these tables we copy as under:—

Oak, air dried	31 per cent.
Beach, birch, and pine	" "

Poplar, maple, ash, average	65 per cent.
Charcoal from other species differs but slightly	" "

VALUE OF CHARCOAL.	
French specimen, 18 to 34, average	26 per cent.

German	31 "
Irish	45 "

VALUE OF TURF.	
French specimen, 18 to 34, average	26 per cent.

German	31 "
Irish	45 "

VALUE OF TURF CHARCOAL.	
French specimen, 40 to 58, average	49 per cent.

German	64 "
Irish	84 21-26ths.

VALUE OF STONE COAL.	
Newcastle	70 per cent.

France, Grande Croix	67 "
Spain, Asturian	59 "

married, on their wives and families, ever remembering that the partners of their lives were entitled to participate in all benefits and enjoyments which they themselves derived. (Cheers.) The proceedings at the works then terminated, and the directors and their friends returned to Northampton. Everything was conducted with the greatest order, and the fineness of the weather added to the enjoyment.

At the George Inn, Northampton, an excellent dinner was provided, and amongst the company who sat down was Mr. Bisgood (chairman of the directors); Mr. Woolley (deputy chairman); Mr. Thomas Lucas (managing director); and Messrs. Baker, Beever, Thompson, and John Lucas, the other directors; the Rev. Robert Cox, Mr. Fox, land agent to Lord Palmerston, Mr. Bond, mineral agent to his lordship, Mr. Rivolta, the solicitor of the company, Mr. Nurse, the secretary, Mr. Archibald, and several other large shareholders.

A splendid chased silver snuff-box was presented to Mr. Thomas Lucas, the managing director, by Mr. Rivolta, the solicitor to the company, bearing the following inscription:

Presented by D. A. RIVOLTA,
To H. M. A. L. U. C. A. S., Esq.,
as a small token of respect, and in commemoration
of the opening of the works
of THE DUSTON IRON ORE COMPANY,
January 1, 1855.

The CHAIRMAN having given the usual loyal toasts, which were duly responded to, proposed the health and long life of Lord and Lady Palmerston. He observed, that many of them knew the kindnesses they had received at the hands both of his lordship as well as her ladyship, who appeared to take more than usual interest in the prosperity of the Duson Iron Ore Company, and he had authority to state that it was nothing but the extreme pressure of ministerial engagements that prevented their attending that day. (Cheers.) Her ladyship had expressed, in writing, in stronger and more eloquent terms than he could here express, their disappointment at not being present to-day. What had his lordship done for them? He had granted a lease of the property upon which the company was formed, and after granting that lease it was discovered, by the managing director, that there was a valuable bed of clay upon the property, calculated, if worked, to materially increase their profits; and which, when represented to his lordship, he at once acceded, upon equitable terms, to have it embodied in the lease. (He (Mr. Bisgood) would not say that the clay, like the ore, was inexhaustible; but he was told many thousands, indeed millions, of bricks might be made at a considerable profit; and in speaking of the liberality of these high personages, the shareholders would be unmindful of their duty did they omit to join heart and hand in the toast. They ought to congratulate themselves upon having such lessors; and he had, therefore, the greatest delight in proposing their health. The toast was then drunk amidst tremendous cheering.

Mr. Fox returned thanks on behalf of Lord and Lady Palmerston, observing, if they could have been present, he was sure they would have witnessed the proceedings of the day with great satisfaction.

The Rev. Mr. Cox proposed the health of the chairman, whom he eulogised for the ability and zeal which he had manifested in the proceedings of the day.

The CHAIRMAN, in returning thanks, said his business was not to carry out his own views, but those of the board of directors; and with such a managing director as Mr. Lucas, a chairman must be without common sense, or indeed any other sense whatever, if he went wrong. He believed if every company had a board of directors composed, like theirs, of real working men, a great many more would prosper than did now.

Mr. Fox proposed the health of their managing director, Mr. Lucas, and the board of directors, observing, as regarded Mr. Lucas, he had seldom met with a man of more diplomatic ability; and with respect to the works, he had never seen work done in the time, or better done, than those under the management of Mr. Lucas.

Mr. T. LUCAS returned thanks. He said when he commenced forming the company, he did not look for high names, but for men of business to support him; and he was proud to say he had obtained such. He had entered into contracts to deliver between 50,000 and 60,000 tons, and which if realised, the harvest he anticipated would give them a ten per cent. dividend.

The healths of the Rev. Mr. Cox, Mr. Woolley, the deputy chairman, and several other toasts being proposed, the party separated at a late hour. The dinner and wines were of the best description, and the whole arrangement reflected great credit on the proprietor of the George Hotel, Northampton.

COAL MINING.

AN ATTEMPT TO ASCERTAIN THE QUANTITY OF CARBONIC ACID GENERATED IN COAL MINES, AND FROM IT TO DETERMINE THE VOLUME OF AIR REQUIRED FOR PERFECT VENTILATION.

[Concluded from the Mining Journal of Dec. 23.]

From what has been previously stated, we proceed to calculate the quantity of carbonic acid produced by one man in 24 hours.

The weight of carbonic acid, corresponding to 5040 grains of carbon, is as 22 : 6. Therefore, as 6 : 22 : 5040 : 18,480; and the specific gravity of carbonic acid being 1.529, 18,480 grains of carbonic acid will be equivalent to 39,195 cubic inches—the volume of carbonic acid expired by one man in 24 hours, or 19,597.5 cubic inches in 12 hours.

The data with respect to the respiration of the horse are not so satisfactory as could be desired; yet I think the following calculation will not be far from the truth. It appears, from experiments on this subject, that a horse while at work expels in one hour about 11,581.5 grains of carbonic acid, or 138,978 grains in 12 hours, an usual day's work for a horse. Then, the specific gravity of carbonic acid being known, we find that 138,978 grains are equivalent to 294,765 cubic inches of that gas, which is, therefore, the quantity expired by one horse in 12 hours.

We must now enquire into the products of the combustion of the candles used underground. Let us take the following analysis of tallow as the basis of our calculations:—Carbon, 72.0; hydrogen, 12.5; oxygen, 15.5 = 100.0. From these quantities we have to determine the volume of air necessary for the perfect combustion of a given weight—say, 1 lb. of candles. In this calculation I shall consider the wick of the candle as being of the same composition as the tallow, and I believe that the error thus introduced will be so trivial as to be unworthy of attention.

The 15.5 per cent. of oxygen in the analysis will be sufficient for the combustion of 1.93 per cent. of the hydrogen, leaving 72 per cent. of carbon, and 10.57 per cent. of hydrogen, to be burnt by the oxygen of the air—72 parts of carbon will require 192 parts of oxygen, and 10.57 parts of hydrogen will require 84.56 of oxygen for their combustion: in all, 276.5 parts of oxygen. In other words, 1 lb. of candles requires 2.765 lbs. of oxygen (exclusive of that contained in it) for its complete combustion, and in burning produces 2.64 lbs. of carbonic acid; or, in grains, 1 lb. of candles consumes 19,355 grains of oxygen from the air, and produces 18,480 grains of carbonic acid: and we have before seen that 18,480 grains of carbonic acid are equivalent to 39,195 cubic inches. Further, 19,355 grains of oxygen are equivalent to 269,660 cubic inches of air, which is, therefore, the quantity necessary for the combustion of 1 lb. of candles.

We now come to the blasting powder, which frequently, by its explosion, gives off carbonic acid; but the sulphurous acid is the gas in powder smoke which is so injurious to health; and many chemists think that carbonic oxide, which is formed during the explosion of blasting powder in considerable quantities, is also very injurious to the system. But before proceeding further, it is requisite that the composition of the powder should be known. English blasting powder is usually composed as follows:—1 equivalent of nitre, 65 per cent.; 2 ditto of sulphur, 20 per cent.; 4 ditto of carbon, 15 per cent. = 100; and when this mixture is exploded, the gaseous products are—1 equivalent of sulphurous acid, 1 of nitrogen, and 4 of carbonic oxide.

The sulphurous acid and carbonic oxide produced may be considered to be as injurious to man as carbonic acid. From the above facts, and others known to all chemists, we ascertain that 1 lb. of powder, having the above composition, will produce 203 lbs. of sulphurous acid, or 1421 grains; and the specific gravity of this gas being 2.247, 1421 grains of sulphurous acid are equal to 2039 cubic inches.

Again, 1 lb. of powder will produce 3566 lbs. of carbonic oxide, equivalent to 2496 grains; and the specific gravity of carbonic oxide being .967, 2496 grains are equivalent to 8320 cubic inches.

We have now investigated the quantities of carbonic acid and other unhealthy gases obtained from their ordinary sources in all mines; but there are still some occasional ones which remain to be considered. These are the decomposition of the small coal in the wastes, the carbonic acid always associated with fire-damp, and that arising from the decomposition of the timber in the mine. Of the amount of carbonic acid emanating from these sources I can form no accurate idea, as the quantity of gas

arising from these changes, all of which are continually going on in many mines, is (if not quite impossible) extremely difficult to determine.

I may, however, mention the following facts with respect to the carbonic acid, &c., in fire-damp, which will be interesting to those who have not previously seen them:—The mean of thirteen analyses of fire-damp gave 1.28 per cent. of carbonic acid, and 9.223 of nitrogen—in fact, the whole volume of the gases escaping from coal may be considered as so much carbonic acid, for none of them, except the oxygen, and its quantity is very small (the mean of 13 analyses gave .37 per cent. of oxygen, while 9 out of the 13 contain none), are capable of supporting respiration.

I shall now proceed to tabulate the results obtained in the preceding remarks:—

1 man, in 12 hours, produces of carbonic acid 19,597.5 cubic inches
1 horse 294,765 " " "
1 lb. of candles, " " " 39,195 " "
1 lb. of blasting powder produces of sulphurous acid 2039 cubic inches.
1 lb. carbonic oxide 8320 "

As we have before stated, the quantity of carbonic acid in air should not exceed 1.5th per cent. Then, multiplying 19,597.5 by 500, and dividing by 720 (the number of minutes in 12 hours), and again by 1728 (the number of cubic inches in 1 cubic foot), we come to the result that each man employed underground should be supplied with nearly 8 cubic feet per minute. In the same way, each horse should be supplied with 118 cubic feet of air per minute. And for every pound of candles consumed underground 15 $\frac{1}{2}$ cubic feet of air should be supplied during the same time; and for 1 lb. of gunpowder, 4.1 cubic feet per minute.

From these facts, it is easy to calculate the quantity of air absolutely necessary in any given time, the number of men, horses, &c., being given. Thus, in a mine let there be 100 men employed, and 10 horses; let each man use 6 candles in 12 hours, the candles being 16 to the pound; and let the weight of powder used in 12 hours be 10 lbs. Then $100 \times 8 = 800$; $10 \times 118 = 1180$; $15\frac{1}{2} \times 37.5 = 590$; $10 \times 4.1 = 41$; total: 2611 cubic feet of air required per minute.

I consider that the estimate of the quantity of air per minute given in this way should be increased by about one-fourth for ordinary mines (that is to say, where there is no fire-damp, or decomposition of the small coal), to compensate for the loss of oxygen suffered by its uniting with various substances in the mine not included in the above calculations. This would raise the 2611 cubic feet obtained to 3263.75 cubic feet per minute; and in "fiery seams," this quantity would frequently have to be increased three or four, up to perhaps twentyfold. It should be carefully borne in mind that my estimate does not give the quantity of air desirable in a mine, but that which is absolutely necessary.

I shall conclude my observations by an extract from the "Report of the Committee of the House of Commons, on Accidents in Coal Mines," made during the session of 1852:—"It should not be forgotten by the coal proprietor, that the unhealthiness of some mines, together with the danger of explosions, greatly enhance the rate of wages they must pay, so long as their workmen have to encounter such evils; whilst the removal of those evils, on the other hand, must tend, ere long, to reduce the rate of wages in collieries more to a level with that of labourers in ordinary occupations." Thus, if humanity does not teach coal proprietors the necessity of an abundant ventilation, their own interest should.

Abercarn, December 21.

R. S. ROPER.

1844 to 768,337; in 1845 to 1,058,342; in 1846 to 1,020,650; in 1847 to 1,285,797; in 1848 to 1,109,335; in 1849 to 980,808; in 1850 to 1,744,161; in 1851 to 1,809,923; in 1852 to 520,402; in 1853 to 2,040,220; and in 1854 to 2,079,995. over the preceding year. Should the traffic continue to increase, and the expenditure on capital account be restricted to providing the necessary accommodation for the increasing traffic, the position of railway property must gradually improve.

The published traffic returns of railways in 1843 amounted to 4,843,000, yielding an average receipt of 304 per mile; and in 1854 to 18,541,000, yielding an average receipt of 2604 per mile. The capital expended on those lines up to July, 1843, amounted to 67,635,100, and in 1854, on the lines in question, to 255,610,000, showing an increase in the annual traffic of 13,698,000, and in the capital expended of 197,974,900. The mileage has increased during that period from 2000 miles to 8000, and the average cost per mile remained about the same, varying from 34,000 to 35,000 per mile.

PROPOSED GREAT CENTRAL RAILWAY THROUGH THE NORTHERN MINERAL DISTRICTS.—The advantages of this undertaking we have pointed out in several articles, and also the defects of Silloth Bay as a site for docks. Amongst the first to acknowledge the merits of the proposed railway was the late Mayor of Carlisle, also chairman of the Silloth scheme, in a letter to Mr. Sewell. Amongst the next to do so, was Mr. Armstrong, writer, Annan, offering his services and his influence with the Lord Lieutenant of Dumfriesshire, and Mr. Mackenzie, of Newby, in favour of the line; but the late Mayor of Carlisle and Mr. Armstrong are very bitter opponents. The site of Silloth for docks was doubtful, and Annan was preferred, for the reasons stated in our columns. This led to a correspondence with the town clerk of Annan, instead of Mr. Armstrong, and caused the local jealousies of Carlisle v. Annan, and of Armstrong, to display their acrimony at a public meeting at Annan, on the subject of docks there; and since, in a manner little creditable to themselves, by personal attacks against Mr. Sewell, one of the promoters of the railway. The Silloth organ, the *Carlisle Journal*, also publishes a leading article, of two columns in length, in a style of abuse which will find employment for gentlemen of the long robe; therefore, we leave it to their guidance at present. It is a great tribute to the merits of any undertaking when opponents, anxiously desirous to discover flaws, can only resort to personal detraction to cover their own inferior scheme. Such is the case with the proposed railway and its Silloth opponents, simply because Annan was preferred to Silloth. Amidst all the vituperation, not a word is said or written against the merits of the undertaking, as set forth by us; but having found out that, like many men who have been instrumental in promoting great national inventions, or undertakings, such as Watt, Telford, and Stephenson, of our own day, Mr. Sewell was performing subordinate duties on the Great Western Railway; they try to make this tell against the scheme! while his 16 years' railway experience is in favour of it. To have the honour of suggesting, showing the advantages of, and giving vitality to, the principle of an improved Solway channel, port, and railway, is one, indeed, "worth contending for," since its successful accomplishment would rank the party high in the list of national benefactors. We shall refer to this subject more in detail in next week's *Mining Journal*.

WEEKLY LIST OF NEW PATENTS.

WEEKLY LIST OF PATENTS SEALED.

R. A. Broome: Motive-power.—Lieut. Col. W. Grant: Prevention of smoke in domestic fire-places.—J. C. Taylor: Underground telegraph wires.—W. C. Taylor: Bearing parts of shafts and axles.—L. W. Evans and J. McBryde: Sulphuric acid.—W. C. Scott: Paddle-wheels.—E. W. Henderson: Ventilating ships.—J. Rose: Fire-boxes of steam-boilers.—U. Scott: Metallic bodies.—F. Archer and W. Papineau: Distilling peat and other matters.—E. Strong: Removing and replacing railway wheels and axles.—Lieut. M. C. Friend, R. N., and W. Browning: Determining magnetic aberrations occasioned by local attraction.—W. E. Easie: Retarding vehicles on railways.—W. Hartly: Safety-valves.—E. White: Lamps.

APPLICATIONS FOR PATENTS, AND PROTECTION ALLOWED.

A. Dawson: Barnes-place, Mile-end-road—Converting small coal or coal dust, or small coal and coke, into solid blocks of fuel.

J. Delpech, Castres—Improved lift and force pump, called "astræna-pump."

J. Knowelden, Church-road, Battersea—Improvements in steam-boilers and other furnaces.

E. F. Hutchins, Whitechapel-road—Constructing the cylinders of engines worked by steam, air, or other fluid body, in a circular form or plan, by which means more power is obtained from a given quantity of the said fluid body in cases where a circular motion is required than by any other known form of cylinder.

P. Spence, Pendleton—Improvements in obtaining sulphur from iron-pyrites and other substances containing sulphur, and in apparatus for effecting the same.

W. Woodcock, Earl's-court, Brewery—Improvement in the combustion of fuel.

T. Craddock, Portway Foundry, Potter's-lane, Wednesbury—Improvements in the steam-engine.

J. N. Gamewell, Camden, South Carolina, U.S.—Improvement in instruments for relieving the wires of the electric telegraph of atmospheric electricity.

J. B. Jackson, Etna Works, Sheffield, and W. Bowler, Sheffield—Improvements in furnaces or fire-places, and in the prevention of smoke.

J. Penn, Greenwich—Improvements in the manufacture of the pistons, slide-valves, and stuffing-boxes of steam-engines.

A. V. Newton, Chancery-lane—Improved method of forging or swaging railroad carriages and other wheels.

U. Chauveau and C. D'Espinoza, Paris—Improved means or apparatus for preventing collisions on railways.

R. S. Newall, Gateshead—Improvements in electric telegraphs.

MANUFACTURE OF IRON.—Mr. J. D. Morris, Stirling, of Clackmannan, Scotland, has patented some improvements in the manufacture of iron, which consist in causing the beds of refinery, boiling, and puddling furnaces to be covered with oxides of iron or of some other metal, or of some of the earthy bases mixed with sawdust, or other lignaceous, resinous, tarry, or oily, and such like matters, and in running molten iron thereon; also, on introducing such matters into such furnaces, and there mixing them with the melted iron, and running the melted iron thereon, and in using a mixture of oxides of iron (or compounds of oxides) and cinder (puddling or boiling furnace cinder being preferred) in a state of fusion, and adding thereto a quantity of cast-iron in a fluid state, and as soon as the ebullition (consequent upon such addition, and upon the chemical action which results) is finished (or nearly so), introducing a piece of wrought-iron, to which the newly formed resulting wrought-iron will attach itself, and to which it is to be gradually pressed by any convenient instrument."

IMPROVEMENTS IN METALLIC PISTONS.—Mr. W. Brunton, C.E., of Cambridge, has just secured under his letters patent for "improvements in metallic pistons," which invention he states consists in a method of tightening up the piston rings whenever required, without the labour of taking off the cylinder cover and junk ring of the piston, at the same time securing equal pressure upon each spring or other power required to force out the piston rings during the said process of tightening, thus effecting a saving in the time and labour required for taking off the cylinder cover and junk rings, making fresh joints, &c.; and also in the perfect security there will be in having each spring or other power increased equally (which cannot be effected by hand, thereby ensuring an equal pressure over the whole piston ring, and in consequence the even wear of the inside of the cylinder). In illustration of the nature of the said invention, he further states that the above may be effected by having a plug grooved to correspond in number with the springs in the piston, fitting into a hole in the centre of the piston. The bolts which are connected to the springs rest in these grooves; when the piston is first inserted they are placed in the deepest part of the groove, or bottom of inclined or wedge-like part. Through the plug a screw is inserted, having a conical collar, which is fitted and ground into the inside of the junk ring, a square head to the screw going through and extending some 1/2 in. outside of the junk ring. In the centre of the cylinder cover I have a hole large enough to insert a box spanner, which will fit the head of the screw extending out of the junk ring, into which hole a plug is inserted when the engine or other machine is at work. When the piston requires tightening up, the plug in the cylinder cover is taken out, and a box spanner inserted; and by unscrewing the screw which is in the plug in the centre of the piston, the plug is made to return inwards, and the bolts attached to the springs forced to a greater distance from the centre of the piston by the inclined grooves in the said plug, thus tightening up the springs. In vertical engines, or other machines where the piston is accessible only from the top, a centre screw or plug cannot be placed, but I insert four or more screws, according to the number of springs in the piston, working in wedges, thus tightening the rings, upon the same principle as above-mentioned.

IMPROVEMENT IN GUNNERY.—A novel and important improvement in gunnery was exhibited on Tuesday last, when a series of experiments were made by the inventor, accompanied by several gentlemen, with a cannon constructed to propel chains and shot in any given direction. The gun is of a peculiar construction, and the chain and shot, when discharged, expand to the full length of the chain, and carry everything before them, so that a column of men might be swept down at an explosion. We cannot particularise the secrets of the invention, which have not yet been made public; but to give some idea of its destructive power, we will describe the result of the experiments brought under our notice:—The ground selected was a plain in Battersea Park; the cannon used were diminutive models, 9 inches in length and 1 inch bore. One shot was attached at either end of a chain 9 ft. long; the guns were raised 2 ft. above the level of the park, and two targets were placed 20 yards distance to fire at; between the targets and the cannon

MINING PROPERTY FOR SALE.—TO BE SOLD, BY PRIVATE CONTRACT, a valuable MINING PROPERTY, on the Forest of Exmoor, in the county of Somerset, known as EXMOOR WHEAL ELIZA. The seat is about 2000 acres in extent, and has several strong, masterly metallic lodes passing through it, and, from appearance, only requires capital and judicious management to make it a profitable concern. The lease was granted in 1840 for 21 years, at £150 per acre. The MACHINERY and MATERIALS consist of a WATER-WHEEL, 25 feet diameter, 5 ft. breast; about 60 fms. of pump work, rods, &c., complete; captain shears; whim; pulleys; captain and whale ropes; and a quantity of miners and smiths' tools. From the reports given at various times by agents who have inspected it, and the strong indications, and ore ground discovered in the different levels, many of the present shareholders are so satisfied that the seat has not been tried to the extent it deserves, that they have expressed their willingness to continue their interest in connection with any respectable party who might prefer taking the managing part instead of the whole, as it will require but a small outlay, in addition to the labour cost, to sink the shaft another lift, there being pumps enough on the mine for that purpose. There is also a residence for the agent, counting-house, carpenters and smiths' shops, and other buildings and plant necessary for carrying on the works. Persons desirous of treating, either for the managing part or the whole, are requested to apply to Mr. W. A. PALMER, purser, Tavistock, Devon; and for inspection of the mine, to Capt. WILLIAM WILLIAMS, the resident agent.

IRON AND TIN-PLATE WORKS TO BE LET, OR THE FREEHOLD TO BE SOLD, most eligibly situate in South Wales, near a railway station and shipping port in the midst of an abundant supply of charcoal and coal, with the best ironstone in the spot. The works consist of one 70-ton and 26-ton power CONDENSING STEAM-ENGINE, large, two six-mills, two pairs of cold rolls, one 7-in. bar or iron mill, washhouse with five sides, foundry, 25 three-story houses for workmen, together with all necessary buildings and machinery for making 600 or 700 boxes per week; the whole in perfect order, having only been recently erected, and having a very large stock of charcoal on the premises. If taken at an early period, the party coming in would have considerable advantages, in consequence of peculiar circumstances under which it is placed with, and the owner would have no objection to let the principal part of the purchase money remain on mortgage. The superior situation of these works will always allow the owner to work at an advantage over any other manufacturer; and satisfactory reasons for disposing of it, together with any further particulars, may be had by application to Messrs. J. and C. Cole, solicitors, 36, Essex-street, Strand.

PENQUEAN QUARRIES.—TO LANDED PROPRIETORS GENERALLY.—FOR SALE, 1000 tons of SLATE, suitable for draining purposes, SCANTLE and RAGS to order, in any quantity. JOSEPH ASHWORTH, Manager.

NORTH WALES.—TO BE SOLD, THE LEASE of a rich COPPER and LEAD MINE, well situated near Cardigan Bay. The proprietor would not object to a company, and would take considerable part of the purchase-money in shares.—Address, for particulars, "M. N.", *Mining Journal* office, No. 26, Fleet-street, London.

SHROPSHIRE.—COLLIERY AND BRICK WORKS.—TO BE LET, FOR A TERM, valuable COAL, BRICK, TILE, and PIPE WORKS, at Weston Lullingfield, near Baschurch, Salop, comprising several acres of land most advantageously situated. The lands adjoin excellent roads, and in a highly respectable and populous neighbourhood, within 400 yards of the Ellesmere and Chester Canal at Weston Wharf, about two miles from the Railway Station and Wharf at Baschurch, and within six miles from the town and Wharf at Ellesmere. The coal has been partially proved; and the clay is of the very best quality, and is proved to be of great thickness.—For further particulars, apply to Mr. SMITH, Leebotwood Works, near Shrewsbury; Mr. ISOS, Steeraway Works, Wellington; and from Mr. TINDALE, Quarry-terrace, Shrewsbury.

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MUSEUM OF PRACTICAL GEOLOGY.—The following COURSES of LECTURES are about to be COMMENCED:—THIRTY-SIX LECTURES ON APPLIED MECHANICS, by Prof. WILLIS, F.R.S., commencing on Wednesday, the 3d January, at Twelve.

THIRTY-SIX LECTURES ON METALLURGY, by Prof. RAMSAY, F.R.S., commencing on Thursday, the 4th January, at Two P.M.

SIXTY LECTURES ON MINING, by Mr. WARINGTON SMYTH, M.A., commencing on Monday, the 8th January, at Three P.M.

The MORNING LECTURES ON CHEMISTRY, by Dr. HOFMANN, F.R.S., will be RESUMED on the 8th, and the EVENING LECTURES on the 10th, of January.

The METALLURGICAL LABORATORY, under the direction of Dr. PERCY, F.R.S., will be RE-OPENED on the 1st, and the CHEMICAL LABORATORY, under the direction of Dr. HOFMANN, on the 8th, of January.

For further information, apply to the Registrar, at the Museum, Jermyn-street.

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Last Lecturer on Chemistry in the Newcastle College of Medicine, and formerly Assistant in the Laboratory of the Highland and Agricultural Society.

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TO GOLD MINING SHAREHOLDERS.—SHAREHOLDERS.—Throughout the past year you have been made the victims of a gross conspiracy. Parties, under the guise of friendship, abusing the directors, and depreciating your property, have forced down your property to almost a non-entity, and have been, at the present prices, laying in large stocks of your property.

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JUSTITIA.

IRON MINES.—Parties enquiring for IRON MINES will find in *Levi's Topographical Dictionary of Ireland*, vol. I, p. 40, under the head Ardagh, in the County Limerick, a description of the strong indications of iron mines in this vicinity. This place is considered by several scientific miners to contain valuable iron mines, and very great local advantages for working them.—Any person wishing for further information on the subject will be answered by T. URRIS, Glenten, Newcastle West, County Limerick.—Jan. 2, 1855.

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THE MINING SHARE LIST.

Shares.	Mines.	Paid.	Last Price.	Present.	Dividends per Share.	Last Paid.	Shares.	Paid.	Last Price.	Present.	Shares.	Paid.	Last Price.	Present.
5120 Alfred Consols (copper), Phillack	£2 11s. 10d.	£12 1/2	17 1/2	17 1/2	£12 15 0	£2 0	8 0	—	15 Dec., 1854.	—	512 Creegbrawne (copper), Cornwall	18 1/2	—	—
8000 Altgold Consols Slate Quarry	2	—	1 1/2	—	0 3 0	—	0 1 6	—	7 July, 1854.	—	12000 Perran Wheal George	—	—	—
2000 Anglesey Coal Company	4	—	—	—	0 10 0	—	0 2 0	—	20 Nov., 1852.	—	10000 Peter Tavy & Mary Tavy (cop.)	5 2	3	—
1624 Balleswidden (tin), St. Just	11 1/2	—	6 1/2	—	12 5 0	—	0 8 0	—	Jan., 1854.	—	2000 Poole & Lancarrow (cop., tin)	£2 3	—	—
5000 Bat Holes, Worthen, Salop	11 1/2	—	—	—	0 10 0	—	0 10 0	—	10 April, 1853.	—	5020 Poltimore (cop., gold), Devon	1	—	—
4900 Bedford United (copper), Tavistock	24. 6s. 8d.	9 1/2	8 1/2	9 1/2	6 11 0	—	0 6 0	—	Nov., 1854.	—	2400 Porkeills United (tin), Wend.	£1 13 4	7 1/2	—
5900 Black Craig (lead), Kirkudbrightshire	5	—	—	—	0 5 0	—	0 2 6	—	July, 1853.	—	6400 Pridelaw Wood, Laxiyan	—	—	—
2300 Botallack (tin, copper), St. Just	9 1/2	—	320	320	323 5 0	—	10 0 0	—	Dec., 1854.	—	7000 Ruth Consolidated, Towednack	4 1/2	—	—
1000 Brynfall, Llanidloes, Montgomeryshire	7	—	7 1/2	4 1/2	0 5 0	—	0 5 0	—	June, 1851.	—	10000 Respryn (copper), Lostwithiel	2	—	—
1000 Carn Brea (copper, tin), Illogan	15	—	—	—	229 10 0	—	2 0 0	—	April, 1854.	—	10000 Rheddu United Mine	£1 6	—	—
10000 Castle slate Quarry, Dolwyddelan	1	—	1 1/2	—	0 1 9	—	0 9 0	—	Aug., 1854.	—	12000 Rinsey United	1	—	—
236 Conford (copper), Gwennap, Cornwall	7 1/2	13	9 0	9 0	—	—	0 6 0	—	June, 1850.	—	2200 Rorrington (lead), Snailbeach	6s.	—	—
236 Condurrow (copper, tin), Camborne	20	80	55 0	55 0	—	—	3 0 0	—	Jan., 1855.	—	226 Rosewarne (cop., tin), Gwinear	24	70	70
128 Cwmystwyth (lead), Cardiganshire	60	185	40 0	40 0	—	—	5 0 0	—	May, 1854.	—	3000 Round Hill, Salop	£1 2	13	—
1024 Devon Great Consols (copper), Tavistock	1	390	414 0	0	—	—	9 0	—	Nov., 1854.	—	4000 Sithney Wheal Buller (tin)	1 1/2	2	—
2000 Duhrodo (copper), Ireland	—	—	0 3 0	—	0 1 8	—	—	—	—	—	1500 Skiddaw & Blencathera, Kewick	1s.	—	—
179 Doletoe (copper, tin), Camborne	257 3	80	872 4 0	3 0	—	—	3 0 0	—	Feb., 1854.	—	12000 Sortridge Consols	1s.	2	1 1/2
2300 Drake Walls (tin, copper), Calstock	11. 9s. 2d.	2	0 6 5	—	0 1 6	—	—	—	—	—	12000 South Boat (lead), Salop	14s. 6d.	—	—
300 East Darren (lead), Cardiganshire	32	80	8 0	8 0	—	—	4 0 0	—	Nov., 1854.	—	2000 South Bog (lead), Illogan	14s.	5	—
128 East Pool (tin, copper), Pool, Illogan	24 1/2	105	238 0	210 0	—	—	2 10 0	—	April, 1854.	—	2000 South Carr Brea (cop.), Illogan	13	5	—
1024 East Wheal Margaret (tin, copper)	50 1/2	20	2445 0	10 0	—	—	10 0	—	March, 1852.	—	2000 South Cork (silver, copper)	1	—	—
1300 Elyan Mining Company, Derbyshire	3 1/2	—	0 5 0	—	0 5 0	—	0 5 0	—	May, 1854.	—	5000 South Crevera (copper)	3 1/2	—	1 1/2
494 Fowey Consols (copper), Tavistock	40	30	399 12 0	10 0	—	—	10 0	—	Aug., 1850.	—	236 South Garras	3 1/2	—	25 27
2340 Fordale, Isle of Man	71. 10s. 6d.	25	41 7 8	1 0	—	—	1 0 0	—	Oct., 1854.	—	2000 South of Scotland	—	—	—
330 Ditto (New Shares of 251. each)	20	20	2 4 0	—	—	—	—	—	—	—	3500 South Tamar (sil.), Beerfeir	2 1/2	—	—
4448 General Mining Co. for Ireland (cop., lead)	2 1/2	2	1 0 8	0	3 3	—	—	—	—	—	2048 South Wales Consols	2 1/2	4	—
2000 Goginan (lead), Cardiganshire, Wales	8	6	22 0	0 0	—	—	0 0 0	—	—	—	236 South Tolgus (copper)	12	4	—
1024 Gonanore (copper), St. Cleer	15 1/2	11	10 1/2	11	0 7 6	—	7 6 0	—	Dec., 1852.	—	2048 East Wheal George, Walkhampt.	—	—	—
13750 Great Crinnis (copper), St. Austell	1	—	—	—	0 1 0	—	0 1 0	—	Sept., 1854.	—	2048 East Wheal Russell, Tavistock	£3 17 1/2	1 1/2	—
119 Great Work (tin), Germoe	160	—	0 10 0	—	0 10 0	—	0 4 3	—	Oct., 1851.	—	20000 South Wheal Yeoland	—	—	—
20000 Hafodroft (lead), near Liskeard	8 1/2	6	2 12 6	—	0 7 6	—	0 7 6	—	April, 1854.	—	288 Spears Moon (copper), St. Just	14	—	—
6000 Hington Down Consols (copper), Calstock	3 1/2	13	13 1/2	12 1/2	0 13 6	—	0 3 6	—	Nov., 1854.	—	5208 St. Austell Consols	£1 18	2	1 1/2
10000 Holm'bush (lead), Callington	25	5	25 0	0	—	—	—	—	—	—	20000 St. Austell United (tin & copper)	—	—	—
2000 Holydorf (copper), near Tipperary	11	—	3 5 0	—	5 0 0	—	5 0 0	—	Feb., 1844.	—	512 St. Michael Penkevil (tin)	—	—	—
76 Jamaica (lead), Mold, Flintshire	31. 12s. 6d.	—	380 0	0 0	—	—	5 0 0	—	March, 1851.	—	1800 Swanpool, Budock	—	—	—
2048 Kennebry (copper), Breage	6s. 7d.	—	0 4 0	—	0 4 0	—	0 4 0	—	March, 1854.	—	20000 Tassan (lead), Ireland	13s.	—	—
786 Kirkudbrightshire (lead), Kirkudbright	9 1/2	—	1 15 0	—	0 5 0	—	0 5 0	—	May, 1854.	—	4944 Tavy Con. (cop.), near Tavistock	£2 11	1 1/2	—
20000 Lackamore (copper), Tipperary, Ireland	1	—	0 1 0	—	0 1 0	—	0 1 0	—	July, 1853.	—	6400 Tegs Side (lead), Cumberland	1 1/2	—	—
20 Laxey Mining Company, Isle of Man	100	1000	1250 0	0	—	—	50 0	—	Aug., 1854.	—	12000 Trennach Consols	—	—	—
5000 Lewis (tin, copper), St. Erth	31. 9s.	2	0 2 0	—	0 2 0	—	0 2 0	—	Aug., 1851.	—	1024 Trebunay, Perranuthnoe	3 1/2	—	—
160 Levant (copper, tin), St. Just	2 1/2	—	1042 0	0	—	—	2 0 0	—	Aug., 1854.	—	2500 Trebunay Consols, St. Teath	—	—	—
400 Llisburn (lead), Cardiganshire, Wales	18 1/2	175	318 15 0	2 10	0	—	0 10 0	—	Dec., 1852.	—	2048 Treverian (tin), Wendron	6s.	—	—
230 Machno Slate and Slab Company	25	30	17 1/2	17 1/2	0 12 6	—	0 12 6	—	Sept., 1852.	—	20000 Trexien (lead), Madron	2 1/2	—	—
160 Ditto (New Shares)	12 1/2	15	15 1/2	15 1/2	0 12 6	—	0 12 6	—	Sept., 1852.	—	5000 Treynon (lead, antimony)	—	—	—
6000 Marks Valley (copper), Caradon	41. 10s. 6d.	51/2	0 2 6	—	0 2 6	—	0 2 6	—	June, 1853.	—	1024 Tregarne (lead), Madron	1 1/2	—	—
5000 Mendip Hills (lead), Somerset	3 1/2	—	0 17 0	—	0 17 0	—	0 17 0	—	Dec., 1852.	—	20000 Trexien (lead), Madron	2 1/2	—	—
5000 Merlin (lead), Flint	2 1/2	—	1 1 0	—	0 2 6	—	0 2 6	—	July, 1853.	—	5000 Treloogian (copper), St. Erth	—	—	—
20000 Mining Co. of Ireland (copper, lead, coal)	7	—	17 1/2	17 1/2	10 6 6	—	0 14 0	—	Jan., 1852.	—	20000 Treloogian (copper), St. Colombe Minor	1 1/2	—	—
5000 Nantlle Vale (slate), Llanidloes	1	4	0 3 9	—	0 3 9	—	0 1 3	—	Nov., 1854.	—	5000 Treloewth (copper), St. Erth	£1 12	2	5 1/2
— Ditto	—	—	—	—	—	—	—	—	—	—	8900 Tremaill (lime, copper)	—	—	—
470 Newtowndale Mining Company, Co. Down	50	—	39 0	0	—	—	2 0 0	—	Oct., 1854.	—	3100 Ditta Preference	—	—	—
200 North Pool (copper, tin), Pool	22 1/2	125	324 0	2 0 0	—</									